United States Department of the Interior

FISH AND WILDLIFE SERVICE

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April 28, 1993

Dear Interested Party,

Enclosed is a summary of the proceedings of the Klamath River Basin Fisheries Task Force meeting, held March 30-31, 1993, in Klamath Falls, Oregon. If you would like more information regarding this meeting, or a full copy of the notes please contact this office.

Sincerely,

Ron Iverson

Ronald A. Iverson
Project Leader

Enclosure

Summary Minutes of the
Klamath River Basin Fisheries Task Force
meeting, March 30-31, 1993
Klamath Falls, Oregon

Members Present: Kent Bulfinch, Mitch Farro, Leaf Hillman, Bill Shake, Nat Bingham, Rod McInnis, Mike Orcutt, George Thackeray, Keith Wilkinson, Barbara Holder, Forrest Reynolds, Tom Stokely, (Bob Rohde for Leaf Hillman)

Absentees: Walter Lara, Jr., Don DeVol

March 30, 1993

Agenda items 1, 2 and 3: Call to order and adoption of agenda, introductions, introductory comments.

Bill Shake called the meeting to order at 1:00 pm. Welcomed all to meeting. Gave a briefing for the purpose of the meeting, emphasizing that the upper basin plan amendment document was out for review and that the Task Force would be taking public comments later in the evening.

Orcutt asked to include discussion of the salmon seasons.

Motion to adopt the agenda (Attachment 1) carried.

Agenda item 4: Adoption of minutes from February 3-4, 1993, meeting.

Motion to approve minutes of the February meeting carried.

Agenda item 5: Report on Clinton Administration Jobs Bill.

Shake reported that the House of Representatives has passed the bill and it is now in the Senate for consideration. He said that the U.S. Fish and Wildlife Service - Region 1 submitted proposals for work amounting to $26 million (including approximately $4.5 million for fisheries programs). The programs in the State of Washington would receive $1,067,000, programs in Oregon will receive $404,000, and programs in California would receive $2.7 million. He said that some of the funds will be used in the Klamath Basin. Shake indicated that he wants the Task Force involved in the project recommendation process in some practical way.

Holder reported that the U.S. Forest Service - Klamath National Forest submitted proposals for $600,000 in ecosystem restoration work. She said these projects tie in well with the long range plan. She also said that, because of the short proposal development process, some projects don't have adequate NEPA documents or proper engineering.

When asked how the Task Force project selection process could be integrated into the Jobs Bill project selection process, Shake said it would be difficult to do because of the short turn around time. He said that as soon as we get firm funding targets we can send out more specific project proposals for review by Task Force members. He said that a Task Force might be able to hold a conference call to review these project proposals and provide input.

Bingham suggested utilizing the Fiscal Year 1993 list of ranked project proposals. Holder suggested having staff develop a list of proposals submitted by all agencies working in the basin.

*** Action ***

KRFRO will compile a list of Jobs Bill project proposals by all agencies. This list will be sent to Task Force members prior to the June meeting.

Agenda item 6: Upper Klamath Basin issues (J. Crawford).

Dave Vogel briefed the Task Force on the intent of the Ecosystem Restoration Plan for the Upper Klamath Basin, developed by the Klamath Basin Water Users Protective Association. He said that the plan focuses on problem solutions and is intended to serve as a catalyst to develop a comprehensive recovery plan. It is also meant to assist the U.S. Fish and Wildlife Service (USFWS) in development and implementation of their recovery plan. He also stated that the plan doesn't focus on single limiting factors for recovery of the ecosystem. He described some of the recommendations for recovery, such as offsite water storage development and implementation of wetlands restoration pilot projects. He said that the plan advocates improved resource management through CRMPs, riparian habitat restoration, integrated and improved water utilization, and water conservation measures.

John Crawford noted that the Klamath Basin Water Users Protective Association's Ecosystem Restoration Plan was developed in leu of a restoration plan to be written by the USFWS. He told the Task Force that they could also utilize this Ecosystem Restoration Plan by adopting it in leu of the long range plan amendment document. Crawford asked the Task Force if the upper basin amendment was a "done deal." To which the reply was no. He claimed that the upper basin amendment does not address water quantity solutions. He stated that the long range plan suggests taking water from the irrigation supply by dismantling the Klamath River Compact. He stated that offsite storage would solve many water supply problems. Crawford addressed the issue of under-representation of upper basin constituents on the Task Force. Consensus decision making could potentially be changed to majority vote, or other process, thereby making the representation issue even more significant.

Shake's response to Crawford's comments included these points: 1) the upper basin amendment was not a "done deal," 2) the Task Force membership is determined in the authorizing legislation (including amendments), and 3) it is not the purpose of the Task Force to dismantle the Klamath River Compact. Shake said that the upper basin amendment is an effort to develop awareness of the entire Klamath River ecosystem.

Agenda item 7: Bureau of Reclamation -- Report on 1993 operating plan.

Jim Bryant, speaking for the Bureau of Reclamation - Klamath Project (BOR), indicated that the 1992 precipitation and runoff were well above average for the upper basin. He said that they project inflow to Upper Klamath Lake to be 120% of normal. BOR anticipates enough water for Class A, B, and C users this year. Bryant also said that they shouldn't have any trouble meeting lake elevation levels as identified in the USFWS biological opinion for protecting the endangered suckers. Lake levels should also be met this fall and next spring as well.

Bob Rohde pointed out that, now that the drought is considered to be ended, Pacific Power and Light Company would have to initiate a formal process of request/notification/review by FERC prior to reducing flows below the minimum levels again.

Agenda item 8: Upper Klamath Basin issues (Elwood Miller).

Miller said that the Klamath Tribe is participating in the Task Force meeting because they, too, share the responsibility to manage the watershed. He stated that the Klamath Tribe is concerned because all of the key players are not yet willing to meet to resolve these issues. Miller said that the Klamath Compact and this Task Force have the potential to manage and restore the ecosystem. He also pointed out that the Water User's plan deserves adequate consideration and some ideas should be considered. When addressing the issue of under-representation of upper basin interests on the Task Force, he said that one representative could effectively represent a large group of people. Miller said that the Klamath Tribe supports the Task Force and the water users that are willing to work to resolve these problems. "The time is now for all of us to work together. We hope that you are serious."

Agenda item 9: Public Comment.

(Leigh Johnson), representing Congressman Bob Smith: He pointed out that upper basin residents are notably concerned with the Klamath River Fishery Restoration Plan. He stated that he was more comfortable after attending this Task Force meeting and hearing discussion on the issues; primarily the consensus decision making process. He also pointed out that it is the desire of the local constituency to support the Ecosystem Restoration Plan, as developed by the Klamath Basin Water Users Protective Association (KBWUPA). He cited offstream storage as a goal that the Task Force should adopt, making it a mutual goal of all interested parties.

Additional Agenda item: discussion of salmon season.

Orcutt opened the discussion by stating that the Pacific Fisheries Management Council would soon be making a recommendation to the Secretary of Commerce, on the 1993 Klamath River harvest rates. He pointed out that for three years spawning escapement for natural spawning Klamath River fall chinook failed to meet minimum levels. He announced that the Hoopa Valley Tribe was asking the Secretary of Interior to allow for additional escapement (for a total of 54,000 natural fall chinook) in 1993. Orcutt asked for support from the Task Force on this position.

Stokely and Rohde indicated that Trinity County and the Karuk Tribe supported this position.

Bingham pointed out that the commercial ocean troll industry supported this conservation strategy in concept, but that the industry could not survive another harvest reduction.

Wilkinson pointed out that the total commercial ocean harvest of Klamath River fall chinook in 1992 was only 1,400 fish, compared to the 1992 inriver harvest of 6,000 fall chinook.

Farro reminded everyone that the 1983 run was also below the "floor" but that it produced record returns in the mid 1980s.

*** Motion ***

(Orcutt): I move that the Task Force support an escapement of 55,000 natural spawners and forward this recommendation to the Pacific Fishery Management Council.

McInnis stated that the National Marine Fisheries Service (NMFS) must support the existing escapement goal of 35,000 natural spawners, and he could not support the motion.

Shake said that the motion was out of order because the Task Force's responsibility is restoration not harvest management. He said that it would circumvent the intentions of the Klamath Act for the Task Force to begin making harvest recommendations. Shake said that it is within the purview of the Task Force to prepare a letter to KFMC and PFMC expressing concern that: 1) the floor hasn't been met for three years, 2) there's a significant effort to restore habitat for those stocks in the basin, and 3) the Task Force strongly recommends that there be no allowances for fishing into the floor.

***** Motion *****

(Bingham): I move to send a letter to KFMC asking that escapement of 35,000 natural spawners be supported.

Motion carried. (One abstention).

***** Action *****

Staff will prepare a letter for Task Force Chair's signature, to be hand carried to the Klamath Fishery Management Council meeting next week.

Meeting adjourned for the afternoon.

March 30, 1993 (Evening Session)

Bill Shake welcomed everyone to the meeting. He introduced himself and asked all Task Force members to do so. To provide some background, Shake stated that the Task Force realized while developing the long range plan for the fishery restoration program, that the entire Klamath River basin must be considered. He said that water quantity and quality are primary issues affecting anadromous fish restoration. He stated that the Task Force wanted to include a section of the long range plan that focused on issues impacting the upper basin. He pointed out that the formal comment period opened in February, 1993, and would close on April 16th.

Orcutt reminded everyone that the Klamath Tribe supports reintroduction of anadromous fish into the upper Klamath Basin, and that the Klamath Task Force endorsed this idea at the outset.

Principal comments made:

- A great willingness to work together to solve these problems. Encouraged that the Task Force has come to the Klamath Falls area to discuss these issues.
- The hypereutrophic nature of Upper Klamath Lake has always existed. Natural conditions of the lake have lead to much of the problems now identified.
- The upper basin amendment document does not address all of the issues, primarily water storage.
- The Ecosystem Restoration Plan developed by KBWUPA should be considered in leu of the upper basin amendment document.
- Agricultural return water is actual cooler than water in the Upper Klamath Lake.

- Trout in Upper Klamath Lake are a special stock adapted to higher water temperatures.
- Waterfowl habitat and water needs must also be considered in the upper basin plan.
- Farmers regularly work to improve wildlife habitat on their lands.
- The amendment, and the issues it raises, are merely a piece of a much larger restoration picture.
- The upper basin amendment is positively framed and contains much information.
- Coordination with the State of Oregon is also necessary, and should warrant a separate section in the document.
- The State of Oregon should be adequately considered. The long range plan contains many references to "State" rules, regulations, and laws, that will have to be revised to reflect the dual-state perspective.
- The Task Force should be prepared to demonstrate how the long range fishery restoration plan relates to other decision making bodies and plans (i.e. the Klamath Compact, the Ecosystem Restoration Plan by the Water Users Protective Association, the USFWS Sucker Recovery Plan).
- The opening of the Klamath Falls ecosystem restoration office by USFWS may be a way to implement better coordination.
- Forest management issues must also be considered if the entire watershed is to be restored. Impacts from logging and destruction of riparian zones must be addressed.
- Dams on the mainstem should be removed to allow access by migratory fish.
- Farmers and ranchers must be encouraged to accept the idea that minimum environmental and habitat standards must be established in the river.
- Local residents preferred access rather than construction of a hatchery in 1918 when COPCO Dam was constructed.
- The Klamath County Commissioners said "no" to the upper basin amendment.
- Predator control should be considered as a means to protect salmon stocks.
- The upper basin amendment will break the Klamath River Compact and will result in a large scale private property suit.
- The upper basin amendment and long range plan are biased and unscientific.
- The upper basin amendment may provide an opportunity to change laws such as the Klamath Compact.
- Ecosystem restoration must be considered, not restoration of part of the river basin.

- Other public landholders such as the US Forest Service, USFWS, and Bureau of Land Management must also be represented on the Task Force. I don't see accountability here.

- The Klamath Falls area generated $205 million in agricultural related income in 1991, a normal water year.

- Local customs and culture must be protected.

- Many more marshes exist now than at the turn of the century because of increased Upper Klamath Lake levels and dike systems.

- Large bird population contributes to the overall nutrient levels of Upper Klamath Lake.

- The Klamath Act has nothing to do with upper basin issues.

- Impacts of ocean rearing conditions must be studied.

- Public land acquisition is not supported by upper Klamath Basin residents.

- Some of its contents of the Ecosystem Restoration Plan should be included in the upper basin amendment document.

- The desire to reduce public spending shouldn't be considered an issue. An example is the recent willingness to spend $14 million on the Salt Caves proposal.

- The Task Force should consider the document titled "2002." It's a wish list of restoration strategies, with no funding committed.

- Unless salmon are restored to Oregon, California can pay for it.

- America is not going to permit the salmon to die without putting forth some sort of a massive effort.

- Any water that flows downstream above that which is needed is wasted.

- The Task Force is out of place by telling the local residents what's best for the local environment.

- The ecosystem approach is the only way aquatic resource restoration efforts will succeed.

- The upper Klamath Basin amendment is a good first step but is not enough.

- Adequate flows must be provided for downstream fish needs. Minimum flows must be allowed in the mainstem Klamath River.

- The Task Force should be up-front and honest when discussing the real "cost" of ecosystem restoration. This restoration can be accomplished with minimum cost, but there's no such thing as a free ride. Everyone will have to pay.

- We must cooperate in getting additional funding for this restoration program.

- The Ecosystem Restoration Plan is not adequate for an anadromous fish restoration plan.

- Before the Task Force endorses offsite storage construction, you should document at least one example of water impoundments improving environmental conditions resulting in increased fish production.

- Problems downstream are not "their" problems but "our" problems.

Chairman Shake was asked to publicly denounce a Congressional testimony given by Mr. Patrick Higgins. Shake indicated that Mr. Higgins was hired as a consultant to assist in the development of the long range plan document, and that he does not speak for the Task Force. His response to this request was that he would ask staff to provide copies of Mr. Higgins' statement to Task Force members. He offered to put discussion of this statement on a future Task Force agenda.

***** Action *****

Place discussion of Mr. Higgins' letter to Congressman Studds on the agenda for a future Task Force meeting.

March 31, 1993 am.

Shake called the meeting to order. Harvey Reading sat in for Forrest Reynolds. Shake suggested adding an agenda item between items 18 and 19, to hold a discussion of how to handle the written and oral comments received on the upper basin amendment document.

Stokely asked to include discussion of Executive Order 12838, which is to reduce the number of federal advisory committees.

Agenda item 12: Update on instream flow proposal by Dept. of Interior.

Iverson stated that the long range plan Chapter 2 calls for an assessment of instream flow needs for all salmon and steelhead stocks affected by Iron Gate Dam. He stated that the Secretary of Interior directed the USFWS and BOR to pursue an instream flow study for the Klamath River. The efforts to date by these agencies was to develop a proposal for a scoping phase of the study. Iverson reported that initial scoping session was held. The meeting was attended by representatives from key agencies, tribes, and local governments. Iverson said that the meeting was conducted by the Sacramento USFWS office, and that these flow study experts were waiting to hear from Interior about continuing this effort. Iverson also said that another instream flow study initiative being developed for the Klamath involves the Arcata USFWS office and the Bureau of Indian Affairs. He said they hope to do a study in the lower Klamath River basin.

Rohde added that the Karuk Tribe attended and read a position statement which expressed dismay that the Department of Interior was proceeding without complete consultation with all of the players.

Forrest Reynolds indicated that the California Department of Fish and Game (CDFG) is concerned that the Instream Flow Incremental Methodology (IFIM) study technique was the only technique being considered. He suggested that there are other techniques that would estimate the flow needs for migrating fish. Reynolds said that IFIM works better for resident fish.

Agenda item 13: Discussion of FY1994 RFP.

Bingham reported that this issue was discussed but not totally resolved at the February Task Force meeting. He said that discussion at the February meeting resulted in a proposal being made which allows the Technical Work Group to assign 10 points for projects employing target groups. The issue that was left unresolved was whether to assign up to 10 points, or whether to allow only 0 or 10 points. Bingham also said that discussion of this issue was put on this meeting's agenda because a couple of key people were not in attendance at last month's meeting. Bingham noted that the Klamath Act requires giving hiring preference to "target groups," including Native Americans, fishermen, and others impacted by the loss of Klamath River fisheries.

Orcutt said he supported assignment of either 0 or 10 points, and not the sliding scale. Rohde conveyed a message from Ronnie Pierce that she supported assigning points on a sliding scale because that is how points are given for all other ranking criteria.

Discussion ensued about how proposers would be required to document that they would employ, or were themselves, target group employees. Farrow said his motion was originally intended to require documentation, but that this wording wasn't included in the FY1994 Request For Proposals (RFP). Hillman asked for clarification on why the motion was even made. It appeared to him that this action would almost eliminate the need for a budget committee, except for reviewing funding levels in each restoration category. Bingham agreed that the budget committee should continue to review the annual work plan as proposed by the TWG. He stated that the issue before the Task Force was to decide on how to apply points; sliding scale or 10 points only.

Agenda item 14: Discussion on changing the cyclical RFP funding system.

Rohde said that Walt Lara's concern is that the Task Force repeats the hurried RFP funding process each year without really identifying the immediate needs of the basin. Rohde explained that the Redwood National Park was in a similar situation until they had technical staff evaluate the needs and make specific recommendations. He suggested that inability to fully fund the TWG prevents the Task Force from having them do the same thing for the Klamath Basin. Rohde stated that more money is needed to fund this TWG effort up front.

Bingham agreed with Rohde that more money is needed immediately, and suggested that each Task Force member go to Congress for additional funding. He also said that the TWG should still consider the process of subbasin planning and local cooperation.

West said that the TWG would be willing to develop a more specific FY1995 RFP.

Agenda item 14: Public comment.

Principal comments made:

- The Task Force must keep all interested parties involved when initiating and implementing an instream flow study.
- Education of fish and environmental issues must be unbiased.
- The findings from all comments on the upper basin amendment document should be published and made available to the public.

- The Task Force should consider the issue of whether the Klamath Tribe and agriculture workers in the upper basin would be considered "target groups."

The Task Force discussed the issue of unbiased education on fisheries and environmental issues. Brian Swagerty and Sue Maurer gave a presentation on what the Siskiyou Office of Education is doing to dovetail their efforts with the Task Force's to teach students about the value of fish and quality habitat. Maurer said that they would be seeking funding from other funding sources and that a letter of support from the Task Force would help. Shake said that he would ask KRFRO to draft a letter of support. Tracy Liskey stated that the upper basin residents would like to review this educational material. Shake told Mr. Liskey that KRFRO staff would send these educational materials to him when they become available.

*** Action ***

KRFRO will draft a letter of support for use by Siskiyou County Office of Education when seeking additional funds to augment their watershed restoration educational materials.

*** Action ***

KRFRO will send draft watershed restoration curricula, as it becomes available, to upper basin contacts to allow for input from the upper basin agricultural community.

Agenda item 16: Action item on instream flow study.

Orcutt said that the Hoopa Tribe wanted to remind the Department of Interior of the trust responsibility to the tribes. Reynolds asked if the flow study was to be done under the auspices of the Task Force, or if it was merely a USFWS/BOR study. Iverson replied that he couldn't answer Reynolds' question, but that the Secretary of Interior was providing the impetus for the two Interior agencies to work together on this. Reynolds pointed out that the State of California has trust authority of the fish populations. Shake said that the Secretary of Interior responded to a letter from the Task Force, last summer, and indicated that he would direct the two interior agencies to initiate this instream flow study process. Shake also said that the decision the Task Force needs to make is to continue or cease the scoping process.

*** Motion ***

(Bingham): I move that we have an additional scoping session to involve upper Klamath Basin folks and other interested parties, Tribes, Oregon DWR, and California DWR.

When asked who should hold these scoping sessions, Iverson said that trained facilitators should conduct these scoping meetings. He said that USFWS staff in Sacramento would be available for that work. Bingham stated that he would incorporate that into his motion -- staff will arrange for this scoping meeting and will provide adequate notification that this will occur.

*** Motion carried. ***

Agenda item 17: Action item on target group/proposal ranking process.

*** Motion ***

(Farro): I move that the TWG, within their proposal evaluation and ranking process, assign up to the 10 points based on the documentation provided by a proposal, on the compliance with Sec. 2-(3) of PL99-552 of their activities in the Program. This is identical to the motion made at the last Task Force meeting.

(Wilkinson): Oregon abstains.

*** Motion carried. ***

Agenda item 18: Action item on how to change the cyclical RFP system.

*** Motion ***

(Holder): I move that we ask the TWG to develop a prototype 1995 RFP which identifies specific and high priority work needed for each subbasin, with special attention given to involving existing planning groups such as the CRMPs.

After some discussion on whether the TWG should write specific work plans for each subbasin, Holder indicated that her motion was to identify types of work and not specific projects. Bingham said that he understands what Walt wants, but that there is not enough staff capability to have these needs identified for each subbasin. Hillman said that he felt uncomfortable with the motion until getting clarification from the Yurok Tribe on this issue.
West recommended that the TWG develop a prototype RFP in May, and present it to the Task Force for evaluation/discussion in June. Reynolds said that would be OK if the Task Force didn't have to take action on it at that time.

*** Motion carried. *** (One abstention.)

Added agenda item: Discussion of how to process the comments received on the upper basin amendment document.

Bingham suggested handling comments on the upper basin amendment by having a subcommittee review the comments and develop a recommendation to the Task Force. (The same process used to develop the long range plan.) All members agreed that the upper basin constituency should meet with a Task Force committee to consider the amendment document, comments, and other issues such as Task Force representation.

*** Motion ***

(Bingham): I move that we form a committee of Task Force members to work on re-drafting the upper Klamath Basin amendment by incorporating public comments and information contained in the Ecosystem Restoration Plan. This is made with the understanding that when the upper Klamath Basin folks and the Klamath Tribe have reconciled their differences on the Ecosystem Restoration Plan, that three people from the upper Klamath Basin and three people from Task Force will come back to the Task Force with a report of how to proceed with implementation of the upper Klamath Basin amendment.

Shake asked for input from John Crawford and Craig Bienz before the Task Force took action. Crawford replied that this was an acceptable approach as long as other issues could be discussed, i.e. Task Force representation and the Ecosystem Restoration Plan. Bienz agreed that this would be acceptable to the

Klamath Tribe. He asked who would be the third representative from the upper basin constituency. After much discussion, the Task Force agreed that the three representatives from the upper basin should be from the Klamath Tribe, Klamath County, and Modoc County.

***** Motion carried. *****

Agenda item 21: Status of the Klamath River Information System. (Bill Kier)

Bill Kier gave a status report on the Klamath Information System being developed for the Task Force with U.S. Environmental Protection Agency (EPA) funding. Kier said that the system will be designed to locate and store water quality and biological data by indexed stream reaches. He said that this system could be integrated into a Geographic Information System (GIS). "It's an empowerment of the restoration program by making a link to the water quality programs of California." Kier estimated that the contract was about 25% completed.

Agenda item 19: Green Sturgeon project update.

Orcutt reported on the green sturgeon tagging/monitoring project being implemented by the Hoopa Tribe. He said that tags have been purchased, and a tagging protocol has been developed. The Hoopa Fisheries Department has worked out an agreement with the Yurok Tribe to get fish delivered by Yurok fishermen.

Agenda item 20: Update on hatchery/wild stock review. (Reynolds)

Reynolds suggested reporting on agenda items 20 and 25 simultaneously. He said that one of the issues has to do with the effects of artificial production on natural stocks. He said that the Department has asked for parties interested in this evaluation effort to get involved. He asked Harvey Reading to give a report on the hatchery review team findings. Reynolds said that the report is in draft, and comments from the Task Force would be accepted until approximately May 1.

Harvey Reading reported that the hatchery operations of Iron Gate and Trinity River Hatcheries were evaluated extensively. The report indicates that two primary issues were considered during this review: 1) potential competition between hatchery and natural fish, and 2) loss of genetic variability caused by excessive hatchery production. Operations at Iron Gate and Trinity River hatchery have changed as a result of this evaluation effort. Reading concluded by saying "we want to emphasize that we think it is unreasonable to assume that populations can be maintained without use of hatcheries. The loss of access to historic habitat requires that hatcheries be operated to mitigate for this loss."

Agenda item 22: Report on the survey of all projects funded to date. (Alcorn)

(Alcorn): We were asked to develop this report at your February meeting. This is an objective survey of each project funded to date with Federal restoration program money. Each project is listed by restoration category, last name, then by fiscal year. The Technical Work Group will have this information to use while ranking project proposals in this year's process.

Agenda item 23: USFS land management plans. (Holder)

Holder said that the Klamath National Forest (KNF) is close to having a draft Land Management Plan (LMP) available for public review. She said that all timber interests were participated in the multi-use planning efforts. Holder said that the KNF has developed standards and guidelines on land management to protect fisheries resources. Timber management will be significantly different from the past. She said that clearcutting will be a thing of the past, except in salvage harvests. Holder indicated that the draft LMP will be published by May, 1993. At that point, a formal input process will be initiated. The final process will take about 9 months for review. Holder asked that briefings by KNF and the Six Rivers National Forest staff be put on the next Task Force meeting agenda.

***** Action *****

Place on the June agenda, a briefing on the U.S. Forest Service's Six Rivers and Klamath National Forest Land Management Plans.

Agenda item 24: Proposed 1994 activities by participants.

U.S. Department of Agriculture:

West said that this was not a good time of year to estimate how much money would be allocated for the U.S. Forest Service's FY1994 fisheries budget. He said the FY1994 budget was still unknown, but the proposed FY1994 fisheries program budget is $2.075 million. We don't know if it will be funded in entirety. If we meet our program goals, we'll have a better chance of getting funding. Forests that don't meet commitments get punished the following fiscal year. He said that the FY1994 budget proposal earmarks about $400,000 for spring chinook restoration work. West concluded by saying "I don't know what the end result will be."

U.S. Department of Interior:

Shake said there is no reason to believe that Klamath Fishery Restoration funding would not be in the FY1994 budget for the USFWS. He also said that there may be some carryover money from '93 Jobs Bill funds. Shake also described the efforts by the USFWS to establish an office in the Klamath Falls area. He said that the Klamath Falls office will be looking at the entire Klamath ecosystem perspective.

Other work to be implemented in FY1994 by the Department of interior includes many water quality and nutrient loading studies in the vicinity of Upper Klamath Lake. Fisheries research by the Bureau of Reclamation and USFWS includes toxicity tolerance and physical water quality tolerance testing on juvenile endangered suckers. The Bureau of Land Management is initiating a land swap in the Jenny Creek watershed and participating in a CRMP in the Spencer Creek watershed (both tributaries to the Klamath River above Iron Gate Dam).

National Marine Fisheries Service (NMFS):

McInnis agreed that this is not a good time to estimate budgets for activities to be implemented in FY1994. He said that the activities that NMFS will be involved with in the Klamath River basin are activities funded through CDFG under Anadromous Fish Act funds. He said NMFS expects about $280,000 to be available in FY1994. Most of it will go to mark and recapture of fall chinook and to tagging IGH fall chinook. NMFS expects to continue staff support on the KFMC and the PFMC tech teams, and will implement recommendations of PFMC regarding ocean salmon management with cooperation from Oregon and California.

NMFS is also committed to collecting information to reduce the impact of bycatch on salmon populations. In addition to that, NMFS is involved with States and the Coast Guard in enforcement of management regulations and the high seas gillnet laws. If California coho stocks south of San Francisco are listed, a shift of activities is expected.

Hoopa Valley Tribe:

Orcutt reported that the Tribe will continue to participate with KFMC, the Klamath and Trinity Task Forces, and will assist in developing an Environmental Impact Statement (EIS) for implementing the CVP Improvement Act. He said they will also follow the issue turning over CVP operational authority to the State of California. The Tribe is working with the World Wildlife fund. The Tribe is developing an Integrated Resources Management plan for the reservation. Biodiversity and economic sustainability are critical to maintaining self sustainability.

Karuk Tribe:

Rohde reported that the Karuk Tribe is in it's 4th year of establishing a department of natural resources. The Tribe will continue monitoring the mainstem Klamath River. They will also work with CDFG and the USFS on monitoring adult runs of fall chinook in leu of operating the Salmon River weir.

CDFG:

Reynolds reported that the Klamath Trinity project will continue in FY1994. Funding may be reduced. The Department will also continue work on the hatchery/natural stock interaction issue, and try to get a handle on salmonid life history in the Klamath River estuary. Habitat restoration projects will probably remain at the same funding level as last year.

Trinity County:

Stokely reported that the county would request a minimum Trinity Lake level regime to allow economic stability in that area. Instream flow releases should total 340,000 acre-feet into the Trinity River, and may be as high as 355,000 acre-feet. The county will also work on the EIS for implementing the Central Valley Project Improvement Act. The County Board of Supervisors will consider the Trinity County Home Rule Coalition.

Stokely also described Executive Order 12838, a proposal to eliminate one third of all Federal advisory committees, except those that are identified by statute. Chip Bruss added that the Executive Order was signed Feb 10, 1993. He said the order also mandated that the Office of Management and Budget (OMB) look at this order to work up some detailed findings. These findings indicate that over 1,100 committees exist, costing over $100 million per year. Bruss said that the Bureau of Reclamation was asked to draft a justification for the federal advisory committees operating in the Trinity Restoration Program. Shake added that the USFWS received the same request for the Klamath River advisory committees and USFWS's response recommendation is that the Task Force and Klamath Fishery Management Council remain in effect.

Thackeray described the Home Rule Coalition as a concept of local governments working with Federal and State agencies to achieve what ought to be done in each county. Federal agencies are under no obligation to operate with counties unless they have a comprehensive land management plan.

Shasta Valley CRMP:

Bulfinch reported that the Shasta Valley CRMP (SVCRMP) is progressing rapidly. The CRMP proposed projects to fence 11 miles of stream, which are progressing quicker than the CDFG can develop the contracts. The CRMP is also working on initiating a pulsing flow to move smolts out of the Shasta River this spring. They're also working on having a staggered ditch opening at the start of the irrigation season so the river won't go dry right away.

Siskiyou County Fish and Game Commission:

Bulfinch reported that the Siskiyou County Fish and Game Commission membership has recently changed. About $2,000 was approved for a group wanting to plant bitterroot brush in Modoc County. The Siskiyou Fish and Game Commission has about $30,000. He said they have funds for small projects, and they need people to put in project proposals.

Humboldt County:

Farro said that the issue of gravel extraction has heated up in Humboldt County. He stated that this issue is more pertinent to the Eel and Mad Rivers. The Humboldt County Fish and Game Commission is finding money available because they no longer fund the operation of Prairie Creek Hatchery. They are deciding how to spend this money.

Agenda item 26: Public comment.

No comment.

Shake appointed George Thackeray to chair the committee that will meet with upper basin constituents to develop a recommendation for the Task Force on the upper basin issues. Shake also appointed Keith Wilkinson and Mike Orcutt to serve as representatives. He said that KRFRO staff will draft a letter to be sent to the Klamath County Commissioners, Modoc County Board of Supervisors, and the Klamath Tribe regarding this work assignment.

Shake also mentioned that the draft letter to be sent to the KFMC has been passed out to each member. He asked for comments by April 1. Shake will carry it to the KFMC for its April 5 meeting.

Agenda item 27: Identify future agenda items.

Shake asked members to give their proposed agenda items to Ron.

Agenda item 28: Set meeting location for June meeting.

The meeting will be held from 8:00 am, June 15th, to 12:00 noon, June 16th, in Yreka, California.

Agenda item 29: Meeting date and location for fall, 1993 meeting.

The meeting will be held in Hoopa, California, on October 5-6, 1993.

Shake thanked staff for putting the meeting together and thanked the folks from the Klamath Falls area for attending the meeting.

Meeting adjourned.

FINAL AGENDA FOR THE MEETING
OF THE
KLAMATH RIVER BASIN FISHERIES TASK FORCE
KLAMATH FALLS, OREGON
MARCH 30-31, 1993

March 30, 1993

1:00 pm	1. Call to order and adoption of agenda.
1:05	2. Introduction of Task Force members.
1:10	3. Explanation of background and purpose of this meeting. (Shake)
1:30	4. Adoption of minutes from the February 3-4, 1993, meeting.
1:45	5. Report on the Clinton Administration Jobs Bill and how it may relate to the Klamath Fishery Restoration Program. (Shake)
2:00	6. Briefing on Upper Klamath River Basin issues, irrigators' perspective. (John Crawford)
2:30	Break
2:45	7. A report from Bureau of Reclamation - Klamath Project on their operating plan for 1993. (Mike Ryan)
3:15	8. Briefing on Upper Klamath River Basin issues, Klamath Tribe's perspective. (Elwood Miller)
3:45	9. Public comment on preceding agenda items.
5:00	Adjourn for dinner.
7:00 pm	Reconvene.
7:05	10. Explanation of background and purpose of this meeting. (Shake)
7:25	11. Public comment on the upper basin amendment to the long range plan for the Klamath River Basin Conservation Area Fishery Restoration Program.
10:00	Adjourn meeting for the day.

March 31, 1993

8:00 am Reconvene.

8:05 12. Update on the instream flow study proposal by the Department of Interior, followed by Task Force discussion of scoping involvement. (Iverson)

8:20 13. Task Force review/discussion of the FY1994 RFP with emphasis on resolving the target employment group incentive points issue.

8:45 14. Task Force discussion of changing present cyclical RFP system. Specifically, discussion of what needs to be done and how the USFWS should go about soliciting bids for work identified.

9:15 Break.

9:30 15. Public comment.

10:15 16. Action: Task Force recommendation on level of involvement in the scoping phase of Interior's instream flow study.

17. Action: Task Force recommendation on how to incorporate the target employment group criterion into the project proposal ranking process.

18. Action: Task Force recommendation on how to change the cyclical RFP project selection process in order to identify critical restoration needs and select projects to meet these needs.

11:00 19. Update on green sturgeon study by Hoopa Valley Tribe. (Orcutt)

11:20 20. Update on hatchery/wild stock review committee. (Reynolds)

11:40 21. Update on Klamath River Information System. (Bill Kier)

12:00 Lunch

1:00 pm 22. Evaluation report for all restoration projects funded by the Task Force from FY1989 to date. (Alcorn)

1:15 23. U.S Forest Service will provide a briefing on the Klamath and Six Rivers land management plans, if available. (Holder)

March 31, 1993 - Continued

1:45 24. Proposed 1994 activities working toward achieving objectives of the long range plan:

U.S. Department of Agriculture. (Holder)

U.S. Department of Interior. (Shake/Alcorn)

U.S. National Marine Fisheries Service. (McInnis)

Hoopa Valley Tribe. (Orcutt)

Karuk Tribe. (Hillman)

Yurok Tribe. (Lara)

California Department of Fish and Game. (Reynolds)

Others (Counties, commercial or sport fishing communities, etc.)

3:00 Break

3:15 25. Hatchery evaluation committee report. (Reynolds)

3:30 26. Public comment.

4:30 27. Recommendations for future agenda items.

28. Set meeting location for June, 1993 meeting.

29. Set meeting dates and location for fall, 1993 meeting.

5:00 Adjourn meeting.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Klamath River Fishery Resource Office
P.O. Box 1006
Yreka, CA 96097-1006

April 26, 1993

Memorandum

TO: Klamath River Basin Fisheries Task Force members

FROM: Project Leader, Klamath River FRO
Yreka, California

SUBJECT: Minutes of the Klamath Task Force meeting, March 30-31, 1993

Attached, please find the complete minutes of the subject meeting held in Klamath Falls, Oregon. We will send a summarized version of these minutes to you at a later date.

If you have questions or wish to revise these minutes, please contact us.

Ron Iverson

Ron Iverson

Attachment

Minutes of the
Klamath River Basin Fisheries Task Force
meeting, March 30-31, 1993
Klamath Falls, Oregon

Members Present: Kent Bulfinch, Mitch Farro, Leaf Hillman, Bill Shake, Nat Bingham, Rod McInnis, Mike Orcutt, George Thackeray, Keith Wilkinson, Barbara Holder, Forrest Reynolds, Tom Stokely, (Bob Rohde for Leaf Hillman)

Absentees: Walter Lara, Jr., Don DeVol

March 30, 1993

Agenda items 1, 2 and 3: Call to order and adoption of agenda, introductions, introductory comments.

Bill Shake called the meeting to order at 1:00 pm. Welcomed all to meeting. Gave a briefing for the purpose of the meeting, emphasizing that the upper basin plan amendment document was out for review and that the Task Force would be taking public comments later in the evening.

Orcutt asked to include discussion of the salmon seasons.

Motion to adopt the agenda (Attachment 1) carried.

Agenda item 4: Adoption of minutes from February 3-4, 1993, meeting.

Motion to approve minutes of the February meeting carried.

Agenda item 5: Report on Clinton Administration Jobs Bill.

(Shake): The House of Representatives has passed the bill and it is now in the Senate for consideration. I can't speculate on what Congress will do. I'll give you some totals on what U.S. Fish and Wildlife Service - Region 1 has submitted. The U.S. Fish and Wildlife Service (USFWS) was given a target of $93 million which was later cut to $87 million. The western Region would get about $26 million out of that total. Approximately $4.5 million would go to fisheries programs. The programs in the State of Washington would receive $1,067,000, programs in Oregon will receive $404,000, and programs in California would receive $2.7 million. Some of the funds will be used in the Klamath Basin. We were asked to identify projects in the Klamath Basin. One project identified is the instream flow study. I'd like the Task Force to have the opportunity to review these costs and projects. Given the short time frame we had to operate in, we used the long range plan to identify projects.

(Holder): The U.S. Forest Service was given about 24 hours to submit projects. We submitted proposals for $600,000 in ecosystem restoration work. These are solid projects that tie in well with the long range plan. Many are on the Salmon River district. Numerous others were submitted, but are not directly tied to fisheries restoration. We're finding that within the short time frame, some projects don't have NEPA documents, or proper engineering.

Q: Bill, how do you see the Task Force project selection process being integrated into this project identification and selection process?

(Shake): It would be difficult to do. One incentive of the Jobs Bill program is to get the money obligated and 50% spent by the end of Fiscal Year 1993. The USFWS and the Task Force is going to have to be flexible in how we review

these projects and how we provide input. As soon as we get firm targets we can send out more specific project proposals for review by Task Force members. The Task Force may have time to review and provide input. It might be done by conference call.

(Bingham): We already have a list of FY1993 project proposals that have been ranked. This may provide some guidance as to what will be considered high priority.

(Iverson): We submitted about 5 items in a 45 minute turnaround time. I'm not sure you'll find any of these projects specifically identified on our FY1993 work plan. But generically, in the jobs bill categories, you'll be able to find some that fit.

Q: Is there a match required for these Jobs Bill funds?

(Shake): No, these are separately appropriated funds.

(Holder): It would be helpful to get all other proposals identified by other agencies.

(Shake): Hearing agreement to this proposal, I'll ask staff to contact all other agencies with the objective of compiling a list of Klamath Basin projects proposed for Jobs Bill funding.

*** Action ***

KRFRO will compile a list of Jobs Bill project proposals by all agencies. This list will be sent to Task Force members prior to the June meeting.

(Reynolds): The State Water Resources Control Board will be asked to help the Environmental Protection Agency (EPA) on this bill.

Q: Were your directions to identify a certain number of projects, or were you to identify projects totalling a certain amount?

(Shake): We were given a target funding figure of $.5 million. We called all field offices and the list of projects and total funding requests what they produced.

Agenda item 6: Upper Klamath Basin issues (J. Crawford).

(Dave Vogel): I'm going to give a brief overview of the Initial Ecosystem Restoration Plan for the Upper Klamath River Basin. This plan focuses mostly on recovery of the suckers. It is a radical departure from past approaches; it focuses on problems solutions, not just the problems. The plan is intended to serve as a catalyst to develop a comprehensive recovery plan. It doesn't focus on single resource issues. It focuses on restoration of the whole ecosystem. It is also meant to assist the USFWS in development and implementation of their recovery plan. A concern that resource users have is that if everyone relies on the traditional recovery approach, it will probably fail. Some problems with the recovery plans developed in accordance with the Endangered Species Act: 1) not effective in resolving overall resource issues, 2) rarely allow for multi-species and ecosystem restoration, 3) do not allow trade-offs between species, 4) not developed until too late. Many efforts in upper Klamath Basin have focused on identifying the primary limiting factor, which is referred to as the "bottleneck." This plan advocates identifying other factors affecting the populations; working on multiple hypotheses. Things in common between the upper and lower basins are river flow (quantity and timing) and water quality (temperature, chemical). Regarding water quality, research scientists have to identify levels of toxicity, life stage

present, proportion of population present, and duration of exposure to determine severity of impacts. Once that is accomplished the resource scientist has to quantify the risk to a population. Regarding wetlands issues, fish habitat, water quality, water storage, waterfowl/wildlife habitat are all suggested benefits. All of these benefits are thought to result from wetlands restoration. The Water Users Protective Association recommends pilot wetlands restoration projects in upper Klamath Lake and other areas. Offsite storage development may provide additional benefits. Water temperature might be reduced in the downstream reaches by cold water releases from such sites. The plan also advocates improved resource management through CRMPs, riparian habitat restoration, integrated and improved water utilization, water conservation measures, and water storage.

Q: Who prepared the plan and who paid for it?

(Vogel): I provide technical assistance, but the Protective Association paid for it and prepared it.

Q: How large of a storage facility is recommended?

(Vogel): About 180-200,000 acre feet. The plan has been endorsed by local folks, but the Klamath Tribe presented some comments of disagreement. We're looking for other input on this plan.

(John Crawford): The first thing I'd like to do is refer to a report titled "Fish and Environmental Restoration Activities to be Implemented by Interior Agencies in Klamath River Basin." Specifically objective 7, which says that Interior is to provide effective administration of effective restoration efforts. The Water Users Protective Association's plan has been provided in leu of something to be developed later by the USFWS. Presently, there is no recovery team, plan, or anything working to help the resource. You folks have an opportunity to utilize the Ecosystem Plan in place of something coming from the USFWS. Is the upper Klamath Basin amendment a done-deal? I refer to the restoration program report for FY92 section 7.7 which implies that this upper basin amendment is already accepted before all comments are received. We're all asking the question "Why are we here if a deal has already been cut?" The upper Klamath Basin amendment does not address water quantity solutions except to infer the removal of the amount necessary for restoration of downriver stocks. There was a commitment by the Task Force at the February meeting, to include Mr. Vogel in the instream flow study. He has not been contacted. The Upper Basin Amendment infers that water quality problems exist in the straits drain, and indicates that agriculture contributes temperature loading. Water was cooler in the Keno reach than in the downstream areas. You asked me to talk about the irrigator's perspective. Their perspective is that the long range plan calls for a systematic dismantling of the Klamath River Compact. The Compact allowed for additional releases last year. If all of the water being released recently over Iron Gate Dam (IGD), that exceeds the minimum FERC flow requirements was saved, it would supply water for 70,000 acres land for one year. It would produce an additional 278 cfs at IGD for an entire year's time. Regarding equity of representation, 65% of the watershed cannot be adequately represented by two members, which will be added if the amendment is adopted.
The consensus decision making process is difficult, as identified in your 3-chairs meeting. Can the Task Force change it? We need to know that before we continue. Irrigators are concerned with restoring the endangered suckers. We must have the ability to provide additional, clean water to irrigators and downstream releases.

(Shake): The Klamath Act has established the membership to the Task Force. There is signed legislation that, in the event of adoption, two new members will be appointed.

(Crawford): After appointment of these two representatives, the Task Force could decide to change to majority vote.

(Iverson): The 1988 amendment to the Klamath Act allows for the Task Force to establish it's decision making process.

(Shake): I can assure you that this Task Force wouldn't decide to change the consensus process. The position of everyone around this table is to operate by consensus.

(Shake): I'll try to address your other questions. Is the amendment a done deal? At our November, 1992 meeting held in Yreka, a number of folks in this room addressed the Task Force with their concerns. At that time we determined to delay the amendment process to allow more comments on the document. We came here in January 1993 to hold a public meeting to hear comments. We'll take comments tonight as well. The plan that you presented to us is valuable information to consider in this process. No, it is not a done deal. We respect your concerns and your interests, and that's why we're here.

(Wilkinson): Other communities on the coast are also pressing for more representation. The legislators were determined to keep representation adequate and at the same time to keep it manageable.

(Shake): Another question that you raised was the issue of dismantling the Klamath Compact. That was not our purpose. We simply began to view the Klamath River system as an ecosystem; one that does not originate at Iron Gate Dam. We felt like we needed to raise the issues impacting the ecosystem to that point. In raising them, it was not our intent to prescribe what folks in the upper basin had to do. There are actions contained in your own restoration plan that you are free to implement. The Klamath Task Force does not have authority to tell you what to do. We only encourage other interested entities to work toward restoration. I don't see a lot of difference in what we've said and what you've said on these issues. This is not a "water grab." It is an approach to develop awareness of the ecosystem, and work toward recovery.

(Wilkinson): We've been asked to incorporate the Water Users Protective Association plan into our own. When differences are reconciled between the Klamath Tribe and the Association on this plan, we should look into incorporating this document into our own plan.

(Rohde): They recommended replacing the upper basin amendment document with their ecosystem restoration plan.

End of discussion.

(Shake): We have received a request from Congressman Bob Smith's representative to provide testimony today in lieu of tonight's meeting. With Task Force OK, we'll hear this at the end of the afternoon session.

Agenda item 7: Bureau of Reclamation -- Report on 1993 operating plan.
(Jim Bryant, Bureau of Reclamation)

(Bryant): We've had an above average year for precipitation and runoff. Precipitation was well above average. We were unsure on how the dry watershed would store water. Regarding Upper Klamath Lake, we estimate March inflow at 293,000 acre-feet. We're looking at 120% of normal inflow. We anticipate enough water for Class A, B, and C users this year. We shouldn't have any trouble meeting lake elevation levels as identified in the USFWS biological opinion for protecting the endangered suckers. Lake levels should also be met this fall and next spring as well.

Q: When is the water year?

(Bryant): Our irrigation season is an ongoing thing, with some contracts calling for water beginning in October and ending in April each year. Other contracts call for a summer irrigation season.

Q: Has the Bureau of Reclamation determined that the drought is over?

(Bryant): We've turned the operation of the reservoir system back to Pacific Power & Light Company.

(Rohde): Now, what will happen next is that PP&L will enter an amendment process to alter the language in the FERC permit.

Agenda item 8: Upper Klamath Basin issues (Elwood Miller).

(Miller): The Klamath Tribe is here because we share the responsibility to manage the watershed. The Klamath Tribe is concerned that all interests are not yet willing to meet to resolve these issues. The Klamath Compact and this Task Force have the potential to manage and restore the ecosystem. The decision to participate on this Task Force is not an easy one because of the sovereignty of our tribe. The Water User's plan deserves adequate consideration and some ideas should be considered. Regarding the equity of representation, in the Klamath Tribe, there are many bands represented, but the collective tribe (2,800 people) are to be represented by one. It doesn't take a great number of people to speak the same thing. We support the Task Force and the water users that are willing to work to resolve these problems. The time is now for all of us to work together. We hope that you are serious.

Agenda item 9: Public Comment.

(Shake): This is a good time for Leigh Johnson to give comments from Congressman Bob Smith.

(Johnson): I appreciate the opportunity to say a few words. It's no secret to any of you when a government agency gets involved in natural resource issues residents of the upper Klamath Basin get concerned. I'm more comfortable now after hearing the comments from this group, and especially about the consensus decision making process. It's the preference of the people of the upper Klamath Basin to look at their plan. I've never heard them say that they didn't want to be a part of the solution. Regarding offstream storage, I think that if we could collectively work on a plan for offsite storage, there may be local money available to help with this issue. If we can get our hands on local funding, we can develop a plan to go to Congress to get additional funding. These upper Klamath Basin folks will commit to being involved in your restoration program. Thank you.

(Bingham): I'd like to thank the Congressman for proposing additional membership to this body, and we'll welcome them on board.

(Shake): (Addressing the audience) If you plan on attending the 7:00 pm session, I'd ask you to hold those comments until that time, and address only the agenda items previously discussed.

No further comment.

Additional Agenda item: discussion of salmon season.

(Orcutt): I wanted to highlight a couple of things that have been going on with specific reference to the Klamath Fishery Management Council (KFMC) and the Pacific Fisheries Management Council (PFMC). Last year when escapement of 1992 natural fall chinook was projected to be well under the 35,000 floor, the PFMC adopted regulations which resulted in an escapement of 11,000 natural spawners. In April, 1992, this Task Force could not support conservation because it considers itself responsible only for habitat restoration. With that in mind, it leads us into the '93 season. We have an ocean population projection that suggests a rebound in the resource. The Hoopa Tribe has developed a position statement which will, in light of the perceived projected abundance, propose to increase the natural spawner floor by 20,000. On April 12, the PFMC will adopt a final harvest recommendation. Three harvest rate options were presented this year for public comment, but these did not include our suggestion. The Tribe is still pursuing the issue because we believe conservation should be high priority. We presented this position to Secretary of Interior Mr. Babbitt. I believe this Task Force should make some recommendation.

(Shake): As a follow up, the Hoopa Tribe's harvest recommendation surfaced at the KFMC meeting. It did not pass out of the KFMC, which has the responsibility of making management recommendations to the PFMC. The KFMC felt that the technical team should review it. If the PFMC were to deviate from the fisheries management plan, it would require an emergency review process. At least from one perspective, you've stimulated review to see if it merits inclusion into the fisheries management plan.

(Stokely): The Trinity River Technical Coordinating Committee supported the Hoopa Tribe's position. A letter of support was sent to Roger Patterson, Chair of the Trinity River Task Force.

(Rohde): The Karuk Tribe concurs with the Hoopa Tribe's position.

Q: Is this being proposed for this year only or as permanent change to basin escapement policy?

(Orcutt): We've focused this recommendation on the '93 escapement.

(Bingham): This issue has been discussed by the Pacific Coast Federated Fisherman's Association (PCFFA) and the troll industry. The position is that if the industry were healthy at this point, we might be in a position to consider and support the position. We've always been supportive of increasing the fish populations. The fishing industry is in trouble now and may not survive this level of harvest restriction. We'd like to support it but we have to go fishing in order to survive economically.

Q: How many Klamath River fish were harvested in the '92 ocean fishery?

(Orcutt): 1,300.

Q: How many were harvested by the tribes in the inriver fisheries?

(Orcutt): Total harvest was 5,500 fish.

(Halstead): The total inriver harvest was about 6,000.

(Wilkinson): I raise this issue to be in the record that the total ocean harvest was less than 1,400 Klamath River fish, and fewer are proposed for next year.

(Shake): I don't want this discussion to get into a harvest issue discussion here. There is another advisory committee that deals with this. There are valid points and numbers on both sides. The point is that the salmon are in bad shape, and escapement has not met minimum levels in three years.

(Farro): In 1983, a year of extreme El Nino but a good precipitation year, there were only 30,000 natural fall chinook spawners. That spawning group produced the record high returns in the Klamath River.

Q: Is there anything out there in the ocean environment that concerns this Task Force (other than in-river problems)?

(Shake): There are many problems in the river, not just agriculture. Ocean conditions such as El Nino, pollution, and sea lion problems in some areas impact fish. It's extremely complex and a single bottleneck approach is not the answer. We have to take the holistic approach. We can't control drought, but we can control recovery of habitat. We have to protect and restore freshwater habitat so that it will support fish when they return. If we don't address this issue, coast wide, we'll be managing endangered fish, and no one will be fishing.

(McInnis): Other ocean fisheries are being regulated in order to reduce their impact on salmon.

***** Motion *****

(Orcutt): I move that the Task Force support an escapement of 55,000 natural spawners and forward this recommendation to the Pacific Fishery Management Council.

(Stokely): Second.

(McInnis): The National Marine Fisheries Service (NMFS) must support the existing escapement goal of 35,000 natural spawners. Until this new floor level has gone through the review process, we will support the goal contained in the fisheries plans. NMFS cannot support other motions that would result in less than 35,000 escapement.

(Shake): The motion is out of order because the Task Force's responsibility is restoration, not harvest management. If we try to make harvest recommendations to PFMC, we've circumvented the intentions of the Act and the KFMC. So, I'm not going to call the question. It is within our purview to prepare a letter to KFMC and PFMC expressing our concern that: 1) the floor hasn't been met for three years, 2) there's a significant effort to restore habitat for those stocks in the basin, and 3) we strongly recommend that they not fish into the floor.

***** Motion *****

(Bingham): I move to send a letter to KFMC asking that escapement of 35,000 natural spawners be supported.

Motion carried. (One abstention).

***** Action *****

Staff will prepare a letter for Task Force Chair's signature, to be hand carried to the Klamath Fishery Management Council meeting next week.

Meeting adjourned for the afternoon.

March 30, 1993 (Evening Session)

Bill Shake welcomed everyone to the meeting. He introduced himself and asked all Task Force members to do so.

(Shake): To provide some background, in 1990 as we completed the long range fishery restoration plan for the Klamath River, it became apparent that we should consider the entire Klamath watershed, rather than just the portion of the river below Iron Gate Dam. Sufficient quantity and quality of water are primary issues affecting anadromous fish restoration. The Task Force approved the long range plan and agreed at that time to begin a formal amendment process. We wanted to include a section of the plan that focused on issues impacting the upper basin. In June 1990 the Task Force decided to proceed with the amendment process. In August 1990 the contractor, William Kier Associates, held a public hearing in Klamath Falls. The first draft of the upper basin document was completed in January, 1991. After considerable discussion and revision it went out for public comment. In fall 1992 the Task Force decided to open the comment period once again. The formal comment period opened last month, and will close next month on April 16th. We held a public workshop here in January of this year. The Task Force wanted to have an opportunity to come to Klamath Falls and hear your comments and concerns.

(Orcutt): When this Task Force originally decided to develop the upper Klamath Basin amendment we supported the idea of reintroducing anadromous fish back to this area. At that time we supported the Klamath Tribe's intentions to do this, and I think this should still be considered.

(Shake): I'll also add that we had a Task Force meeting this afternoon and heard presentations by local water users, the Klamath Tribe, Congressman Bob Smith's staff, and BOR gave an overview of the 1993 water year. We were asked if the upper basin amendment is a "done deal." The answer is no. We'll take your comments seriously. We want to work with you to restore habitat.

Public Comment:

(Joseph Riker): City of Klamath Falls. (Handed out copies of his statement. Attachment 2.)

(Riker): My background is in natural resources management. I'm here to welcome you to Klamath Falls. We're pleased that you're here. The problems identified by the Task Force have been here since the formation of the system. The hypereutrophic nature of the lake has always existed. The shallow depth of lake and low flow rates from Upper Klamath Lake to Keno are causes for high water temperatures. Water temperatures are higher downstream from Keno than in the Klamath straits drain area. Upper Klamath Basin waters are nutrient rich. High temperatures and low dissolved oxygen concentration were present before caucasian settlement. Local waters are noted as being high in nutrients, arsenic, and Ph. Early studies indicated that the largest BOD (Biological Oxygen Demand) loadings came from the natural aquatic life in Upper Klamath Lake. The highest loadings occur at the head of Link River which is above domestic and industrial waste discharge areas. All of the man made BOD loadings are insignificant compared to natural loadings. There is a complete recovery of dissolved oxygen levels by the time the water reaches the Big Bend powerhouse. Existing waste water discharge requirements for the Klamath Falls waste discharge plant are more purified than local waters. What does the Task Force propose to do about natural nutrient loads in upper Klamath Basin waters? Your amendment document cites personal communications with John Fortune that there is a "blue ribbon" fishery at the same time as it asserts that water quality is impairing recovery. I submit to you that the upper Klamath Basin amendment is incomplete, and that the Water Users

Protective Association Ecosystem Recovery Plan opens the door to new ways in looking at ecosystem restoration. Tonight we urge you to consider this plan.

(Michael Hartfield): Consultant to Klamath Falls for the Salt Caves project. I heard at today's meeting that there is a willingness to work together to achieve solutions. We've studied this watershed extensively in the Salt Caves project. Reading Section 2.0 from the No Dam Alternative document "water is actually cooler coming from the irrigation project than it is in the lake." Oregon Department of Fish and Wildlife (ODFW) believes the trout in Upper Klamath Lake are a special stock adapted to higher water temperatures.

Q: What was the time frame for temperatures you cited?

(Hartfield): I believe it was March through September. The complete details are in the document.

(Don Zupan) Oregon Trout: My concerns are only for fish, I don't make my living fishing or farming. I'm only interested in fish. I doubt that the locally adapted trout would suffer if water were cooler. Anything we can do to improve water quality in the Klamath River would benefit salmonid species and suckers. I hope allowances will be made for waterfowl refuges. I believe a solution can be reached, and trust that your objectivity will ensure that.

(James Flowers): I believe that the Ecosystem Plan provides a better solution to making the water better. Even though I'm a farmer, I've spent a large part of my time making things better for wildlife. We could solve this with a few things such as extra storage. Two to Three hundred thousand acre-feet would be enough water to provide adequate releases down river. We want to restore the salmon to the upper river. The Ecosystem Plan recommends that the Running Y Ranch be developed for offsite storage. You should consider that you won't gain more water if you stop the farming. Water quality is not something that we caused. Prior to 1945 there never was a drop of water released. The Water Users Protective Association is saying that we could purchase a offstream cite for $10 million. This would improve conditions. We must use this opportunity to work together.

(Rick Bastach), Oregon Department of Water Resources (ODWR): The State of Oregon assigns a high priority to review and consideration of the upper basin amendment document. ODWR was asked to develop a compiled response from various State agencies. There are a number of things that are pleasing about the upper Klamath Basin amendment. We see it as a piece of a larger picture. We appreciate the basin-wide approach. This is a positively framed document. Much information is contained in it. Something we especially like from the long range plan is the concept of communication. We're so taken with the principles of coordination, we think that it should be a separate section in the upper Klamath Basin document. We think coordination with the State of Oregon is also necessary. We hope that there will be a commitment to consider upper basin projects for funding. In the long range plan there are areas that are understandably a California monologue. But, we think the state of Oregon should be adequately considered. There are many references to "State" rules, regulations, and laws, and we hope that there will be an opportunity to adjust the long range plan. The ultimate test of coordination would be for the Task Force to demonstrate how this recovery plan relates to other decision making bodies and plans (i.e. the Klamath Compact, the Ecosystem Restoration Plan by the Water Users Protective Association, the USFWS Sucker Recovery Plan). The opening of the Klamath Falls ecosystem restoration office by USFWS may be a way to implement better coordination.

(Thackeray): You want to coordinate in the entire project. Are you also willing to put up money, as a State?

(Bastach): I think Oregon would be interested in putting up funding. The State is looking at how to develop a position in that USFWS Ecosystem Office. The State hasn't been tracking this issue, and we're still on the steep learning curve.

(Reynolds): I appreciate your comments. The State of California attempts to keep up with the match-funding requirement. In our support of the upper Klamath Basin amendment, we believe a great deal of coordination and research would be necessary in developing a document for the upper basin. The long range plan was written addressing issues in the lower basin.

(Mark Gafny): I'm speaking for myself tonight however in past 3 years I've worked with the U.S. Forest Service and Audubon Society mapping old growth forests in Winema National Forest. It's not surprising that water quality issues are a problem. We must better manage our forests. I trust that the final decisions will be made on the best available science. Impacts are not just from logging. There are severe impacts in riparian zones. These areas are critical for storing water, and I urge landowners to be aware of the problems with impacts to riparian zones. I support removal of dams to restore anadromous fish to historic areas, and support improving marshes to improve water quality. I urge the farmers and ranchers to accept the basin idea that minimum standards must be established in the river.

(Louis Ferber): I've lived on the Klamath River for 70 years. I'm a rancher and an irrigator. I hear a lot of talk about restoring marshlands around the lake and river. Water level in Upper Klamath Lake used to rise in spring, but when Link River Dam was built the lake became a reservoir. Some early day cattle ranches were flooded out. As water used to recede, ranchers would farm sugar grass in meadows behind receding waters. When talking about restoration of marshlands, there weren't marshes originally. When talking about the lower reach near Keno, the high water in spring filled the lake, and held up at the reef at Keno and backed into lower Klamath Lake, which was connected by the straits. Steamboats used to travel the straits. There was a tremendous reservoir in Lower Klamath Lake. Water came up and gradually went back down. When the U.S. Government took over, drained Lower Klamath Lake and built Link River and Keno Dams, it changed the whole system. In 1918, COPCO completed the first dam on the Klamath River, shutting off salmon and steelhead runs to the upper basin. We had 3,000 signatures from this area petitioning to keep the salmon and steelhead access open to this area. Dam passage should still be considered. In reading your membership list, I have grave concerns. Who represents Klamath county and farmers and ranchers? I recommend that you drop the upper Klamath Basin amendment, and allow us to proceed with the Ecosystem Recovery Plan.

(Wilma Heiney): Vice President of Women for Agriculture. At the meeting you held on the 25th of January, 1993, the Klamath County Commissioners said "no" to your upper Klamath Basin amendment. They asked if this upper Klamath Basin amendment breaks the Compact and you said "no." They said they have to support the local interests. That evening you reported that they were "frustrated" and didn't tell the audience that the Commissioners said "no." It is my hope that the Federal Government will cancel this Task Force altogether. The two States are having financial difficulty. Your plan will not recover the populations because 88% of death rate is caused by the predators. This amendment will break the Klamath River Compact and will result in a large scale private property suit. Your final draft of the long range plan and draft of the upper Klamath Basin plan is biased and unscientific and considered unconstitutional by me.

(Jean Elznor): Klamath County Commissioner. I am here to read the testimony of Nel Kuonen (Attachment 3). She cannot support the upper Klamath Basin amendment because it contradicts the Klamath Compact. Additional water storage should be considered by all involved.

(Chuck Wells): We have a history in the West of trying to achieve prosperity at someone else's expense. This situation may provide an opportunity to change laws such as the Klamath Compact. You must consider the process by which you will address this restoration program. You can't deal with an ecosystem in parts. Regarding membership, the U.S. Forest Service, USFWS, and Bureau of Land Management must also be represented. I don't see accountability here. You now have our attention and I request that you have another workshop to address the question of the restoration process. The real issue is we need to get everybody involved, then determine how we'll restore this watershed. There are too many of us putting a demand on this watershed. There must be some way of saying no more lands can be converted to farm use. We have water rights problems and should assess whether the system is really working.

(James R. Ottoman): I've been here for 68 years. My grandparents were here since 1909 because the Federal Government said they wanted to settle the West. I think your draft is a little bit biased. Your document said that this area received an annual average of 22" of rainfall. From 1960 to 1990, the actual average is 12.6 inches. Your figures are wrong. Bill Shake said everybody always points a finger at sea lions. A newspaper article that I have indicates that Norwegians will control seal lion populations to protect fish populations. Irrigators allowed additional water releases last year to flush fish. Do you know where these fish go? It would be well advised to study the ocean for impacts. We know the value of water and have developed a complete ecosystem of water delivery. This area generated $205 million in agricultural related income in 1991, a normal water year. Until 1992 figures are in we don't know what the economic impact of the drought was to this area. In 1969, a California report indicated less than 1/3 of water runoff was used in the upper basin. Let's consider water storage to provide water when we need it. We need your political help in getting something done up here. The Ecosystem Restoration Plan proposes some solutions.

(Tracy Liskey): Rancher, 3rd generation in the basin. We've dealt with the Federal Government and have been run-over in the past. A group in this community put together a petition to protect our local economic stability and protect our local customs and culture. We formed a Task Force of which I'm president. We assisted in development of the Ecosystem Restoration Plan, which states that we're willing to work with groups from the start. We like to coordinate with agencies and like to get things done. There's a lot of people in government that know books. We feel the Ecosystem Plan is good and we've endorsed it as a restoration strategy. We would ask that you adopt our plan. We gave up water last year to allow releases downstream. We're sympathetic with the fishing industry. If you adopt our Ecosystem Restoration Plan you are working with us from the start. You can satisfy our County Government and local interests by doing this. We need your help to get things done.

(Bulfinch): Regarding this Ecosystem Restoration Plan, there are a lot of actions recommended and few would be objected to by this Task Force. What agencies would you expect to take the lead in developing this restoration effort?

(Liskey): Much would occur through local community work and would be implemented by local folks. Many projects are by volunteer effort.

(Dave Solemn): Thank you for coming up here to hear us. I've heard on several occasions how this amendment is going to work and how it fits into the plan. I have some of the same comments that Rick Bastach had. When, or if, it's adopted there are some issues that must be clarified. For example you use the phrase "optimum" and suggests that, by year 2000 the you would reauthorize water rights under the public trust doctrine. In a recent Herald and News article, a USFWS employee stated that these recovery plans were written

assuming unlimited funding and staffing. The amendment makes no policies for stream passage above Iron Gate Dam, stream diversion, or storage. Reintroduction of salmon is not recommended. The water delivery and use issues are as complex in the upper Klamath Basin as are the needs and impacts in the lower basin. A study by ODEQ identified impacted water systems in the basin. This study shows that the system is complex and you can't focus on one cause and solution. Water management issues are also very complex in the upper basin. Farmers are affected because of actions that were taken in 1992. Marsh Restoration is mentioned several times in the upper Klamath Basin amendment. Dr Gearhart indicated that marshes are temporary reservoirs of nutrients. The question now is what can be done? We have the Ecosystem Restoration Plan, water quality plans, Klamath Compact, and the sucker recovery plan. Tonight I urge you to look at what has been done, and I believe we can all work together through avenues that are already in place at less cost to the taxpayer. With input from everyone we'll get the job done.

(Francis Landrum): I'd like to point out some things regarding your upper Klamath Basin amendment. One thing is the Klamath River Compact. Is there any one here that knows why the Compact was drawn? This was drafted in response to a Southern California effort to divert all water to that location. I think a plan can be drawn which considers higher priority consideration for fish populations in the lower river. In 1910, two different survey parties surveyed areas of upper Klamath Lake, with instructions to locate the original mean high water marks at a meander corner. Once they found it they were to establish contours from that point. This request was made by the US Bureau of Reclamation. It wasn't higher than 4147.8 prior to when the reservoir dam was constructed. Many more marshes exist now than at the turn of the century because of increased lake levels and dike systems. When a river flows through a marsh to a dying lake, it transports the decaying humate. When you put this in a shallow lake, you produce lots of algae. Another thing to consider when talking about a dirty lake, lots of birds will use it. All those birds increase the productivity levels. Algae didn't bloom last year because the Williamson River quit flowing earlier in the year. Not much humate got into the river. This points are all missed by your amendment. Regarding membership of this Task Force; in 1986 you put together your Klamath Act, at that time you had 12 members. Since that time you've added two members for a total of 14. You've had ample opportunity to increase representation. It's necessary to have equal representation. All of the stuff in your original Act was written for downstream issues. The original Act has nothing to do with upper basin issues. I suggest hat you get all of the facts. Since 1960 consumptive water use in the upper basin doesn't hardly compare to what is wasted downriver above the minimum FERC flows. With cooperation from this community, storage would allow improved flows and improved irrigation delivery. I feel strange standing in my own back yard discussing this with you with no representation from this area.

(Orcutt): Your comment that water is "wasted" when it flows downriver is partially the reason that we're in this position of having to restore fish runs. Another thing, this Task Force has not spent a dime in this upper basin, and the authority you assume it has does not exist.

(Landrum): I resent the statement that this philosophy has caused the downriver problems. If the Tribes would check their history, they would find that they were american citizens when the treaties were drafted, and are therefore null and void. Check it out.

(Frank Goodson): I'm president of the Klamath Basin Waterfowl Association. We are concerned that your upper Klamath Basin amendment could lead to decline of waterfowl habitat and hunting opportunity in the upper basin. I'm taken back by the complete lack of discussion of waterfowl in the upper Klamath Basin document. This area is the single most important migration area for the Pacific Flyway. The Klamath River is not the most significant fish producing

stream. (Mr. Goodson read a statement, Attachment 4.) We recommend that you join us by leaving the water alone and help us to create additional offsite storage.

(Rod Kucera): Klamath Co. Farm Bureau. For years our agricultural operations have had no troubles. We've been proactive even before the drought. You've seen the Ecosystem Restoration Plan and we support that plan. Some of the things your plan considers are water quality and quantity. My thought is that you will concern yourselves with quantity. You must consider deep water storage in this area. This would meet all needs and enhance the economy of the entire basin. We're asking for you to work with us, and in doing so, drop your amendment, and spend your time working with us on these storage projects.

(Farro): Regarding offsite storage, most of the system is relatively flat. You'd have to pump water, and that would expend more energy to pump than you'd generate getting it back out.

a: This could be funded cooperatively.

(Farro): Flows similar to natural flow regimen are needed to provide natural fish habitat and that's one of the problems on the Trinity River system. Water is not wasted when it flows downstream; it is needed to maintain the river system.

(Mary Kay Taylor): I'm also born and raised in this area. Your document does not look at the whole picture. You need to do ocean studies before you go further. Foreign fishing vessels also have an impact. You didn't mention the Ecosystem Restoration Plan in your draft document. You did mention the Klamath Compact. There was also no mention of storage or waterfowl needs. Your document did discuss public land acquisition. Oregon is presently 54% public land. We must consider what needs to be done and what we can do. Your document does not mention that Klamath County provided input. I'll introduce a new subject; there are lies in the upper Klamath Basin amendment. One of the fellows that helped you draft your plan and that testified in Washington D.C. indicated that we don't see the big picture and are only concerned with making money. We consider that an insult. You should admit to his accusations or tell him to keep quiet.

(Shake): Just for clarification, you are referring to a letter (Attachment 5) sent to congressman Studds which is signed by Mr. Pat Higgins. The letter is written on letterhead of the Humboldt Chapter of the American Fisheries Society. It doesn't represent the views of this Task Force.

(Taylor): May I ask that you read this document and publicly refute this statement?

(Shake): I'll provide copies to Task Force members and discuss it. I can't determine what the Task Force will do. It will be discussed as an Agenda item, and we'll provide you with a note of our discussion.

***** Action *****

Place discussion of Mr. Higgins' letter to Congressman Studds on the agenda for a future Task Force meeting.

(Reynolds): I'm hearing many of you express concern that the Task Force is proposing to come in here and condemn property or water. That is not our intent. If the upper Klamath Basin document indicates that, we need some written comment from you identifying where these assertions are being made.

(Taylor): One more comment. Because of offshore drilling, there is a fund that contains $9 billion for buying private land to put into public ownership. Does anyone know anything about this program?

(McInnis): I don't know of a federal law allowing that accumulation of funds.

(Reynolds): The State of California gets funding, but that money is already spent as far as I know.

(Shake): We'll try to search this out, but I ask you to do the same thing.

(Stokely): Is the Running Y Ranch in private ownership? If so, are you opposed to acquiring that piece of property?

(Taylor): If the entire community believes it will benefit the resource, I can live with it. I have a difficult time dealing with public acquisition.

(Farro): A question for you and other folks who have commented; did you look at the section in the long range plan that contains a policy to work with local subbasins to resolve local problems? Our Technical Work Group (TWG) is working on this process right now. I ask that you go back and look at Chapter 2 of the long range plan.

(Gary Nichols): I'm a native resident of Klamath Falls. In the past 9 years there have been four items that have brought the local environmental problems into the forefront. These items were the Salt Caves Proposal, the 6 year drought, the endangered sucker problems, and now the salmon restoration work. I'm not speaking in favor of or opposed to the amendment, I appreciate what has come out. This is causing people to get together to address problems. Not all is well in the upper basin, we've not been good stewards in this area. We've used the river system to extensively to dispose of our local wastes. We're all contributing to the problem. I appreciate you all for coming here to address these issues. I agree that there is inadequate representation of the upper basin on the Task Force. I reviewed the Ecosystem Restoration Plan, and appreciate that the agricultural community developed a plan to work on these problems. Some of its contents should be included in your upper basin amendment. Regarding costs to the tax payer, we've spent over $14 million on the Salt Caves proposal, so we're not all that concerned about costs. I encourage you to consider the document titled 2002. It's a wish list of restoration strategies, with no funding committed. I hope that we can all work together.

Q: What would you do if you had your wish?

(Nichols): I would ask that all of those involved to do their part, for posterity.

(James Beck): We've changed the ecosystem drastically, and we must recover these ecosystems. In my opinion, unless salmon are restored to Oregon, Calif can pay for it.

(Sherman Anderson): Northwest Rafters Association. We look favorably on the upper Klamath Basin amendment. America is not going to permit the salmon to die without putting forth some sort of a massive effort. Whether we like it or not, we can be involved. We can go in a be a part of the solution. The Ecosystem Restoration Plan demonstrates that we have something to offer, and many things recommended in it will help fix these problems.

(Bob Flowers): I don't agree that all these environmental problems exist. Regarding wasted water, any water that flows downstream above that which is needed is wasted. We need better storage capability. We have two restoration documents for this area. I wouldn't attempt to tell you what salmon need.

When you come up here and tell me that I'm doing it wrong, I don't think you know what you're talking about. We also need adequate representation on the Task Force.

(Felice Pace): Klamath Forest Alliance. I want to say to the Task Force and the USFWS that the ecosystem approach is, in our opinion, the only way we'll succeed in restoration of aquatic resources. We must continue to move in that direction. The upper Klamath Basin amendment is a good first step but is not enough. We believe that adequate flows must be provided. Minimum flows must be allowed in the mainstem Klamath River. We also believe that refuges must provide habitat for waterfowl and wildlife. When you all make the statement that "we don't want to take anything away from people" I think it's dishonest. I believe you should be more direct in stating that people will have to make some sacrifices. We must cooperate in getting additional funding for this restoration program. I resent that the Ecosystem Restoration Plan is being presented as the answer for restoring salmon. It's not a salmon restoration plan. To say something about dams, I would ask you to bring one example of where a dam has been successful in restoring fish populations. That will have to be demonstrated if it is to be endorsed. Problems downstream are not "their" problems but "our" problems. Water rights comments are also discouraging when you say we may allow you some of "our" water. We can all fight, but we all will lose. This restoration can be accomplished with minimum cost, but there's no such thing as a free ride. Cooperative approaches such as the CRMPs in the Shasta and Scott Valleys are ways to accomplish our mutual goals.

(Shake): This concludes our public comment period for the evening. Any overall comments by Task Force members?

(Bingham): I want you all to know that I've listened to you all very carefully. We will work on the upper Klamath Basin amendment to incorporate and modify it accordingly. I will work to ensure that this community is represented on this body.

(Shake): I echo that comment from Nat. We'll consider these comments.

March 31, 1993 am.

Shake called the meeting to order. Harvey Reading sat in for Forrest Reynolds. Shake suggested adding an agenda item between items 18 and 19, to hold a discussion of how to handle the written and oral comments received on the upper basin amendment document.

(Orcutt): In regards to the letter to be developed on harvest management issues, will KRFRO staff prepare the letter?

(Shake): Yes. KRFRO will allow all to review it. We'll fax it to all members by the end of the week for comments.

(Stokely): I'd like to discus Executive Order 12838, which is Clinton's proposal to reduce the number of federal advisory committees.

(Shake): How about discussing it as part of agenda item 24? a: OK.

<u>Agenda item 12: Update on instream flow proposal by Dept. of Interior.</u>

(Iverson): This was an item at the last Task Force meeting. As we reviewed at that time the long range plan Chapter 2 calls for an assessment of instream flow needs for all salmon and steelhead stocks affected by Iron Gate Dam. Last year the Task Force wrote to the Secretary of Interior asking, among

other things, that these studies be conducted. The Secretary's reply was the USFWS and Bureau of Reclamation would be directed to pursue an instream flow study. So those two agencies developed a proposal for a scoping phase which is to develop the details of a study. Since the Task Force meeting, a scoping meeting was held in Yreka. Three Federal agencies, 2 State agencies, 2 Tribes, and Siskiyou County were represented. That's as far as it's gone at this point. The Sacramento USFWS office is waiting to hear about funding for this project. A comment by Mr. Crawford indicated that the irrigators believe their technical representative was left out of the process. The process will allow for them to be involved. Not much will happen until funding is identified. Another instream flow study initiative in the Klamath involves the Arcata USFWS office and the Bureau of Indian Affairs. They hope to do a study in the lower Klamath River basin.

(Shake): That's still in the discussion stages.

(Iverson): The geographic extent that we went into the process with was from Iron Gate Dam to the Salmon River. This is the area apparently influenced by the dam.

(West): Can you tell us what the attendance was?

(Iverson): The meeting was attended by representatives of the Karuk and Hoopa Tribes, CDFG, Siskiyou County, USFWS, and Bureau of Reclamation. We also invited the USFS, NCRWQCB, and the Yurok Tribe, but no one attended for these agencies.

(Orcutt): I have a letter written from us to Roger Patterson. The major point of the letter is that we shouldn't focus on the river downstream from Iron Gate. It's critical that the Klamath Tribe also be involved as well as other interests of the upper basin. We would lend our support behind efforts like this by Interior, in getting funding if proper credence is given to involving Tribes.

Q: Is this going to be a 12 year study?

(Iverson): That remains to be defined.

(Rohde): The Karuk Tribe read a position statement (Attachment 6) at that meeting because we felt that we were left out of the process. After some preliminary meetings, the proposal was narrowed to the area described by Ron. The USFWS Ecological Services staff had no prior knowledge of the Klamath River system and had to develop this proposal by a deadline. After our discussion with them, they fell back on what they had developed originally. After discussion at the scoping session, the group seemed to agree that we would look at the section from Iron Gate Dam to the Trinity River. We all recognize that the entire basin must be evaluated and that the initial proposal focused on the smaller area based on discussions by BOR and USFWS. CDFG indicated that they were interested in initiating an instream flow study on the Shasta and Scott Rivers. The Arcata USFWS office indicated that they were going to work on a flow study for the lower river from Weitchpec to the mouth.

Q: How long do these things take? You have to look at flows a different levels. Are we talking about 5 years of study?

(Rohde): Sacramento USFWS staff indicated that this initial review could take place within a year. What they're striving for is to initiate the scoping process. They were trying to figure out what the target fish groups were that they would focus on. Since they were only targeting on the mainstem, I was perplexed, because they need to focus on specific habitat types. They identify cross sections and study these sections over varying flows. They

were talking about 6-9 month scoping and identifying transects. Over longer period of time, they would look at these given transects to determine changes in habitat availability.

(West): I suggest a longer lead time in order to have all interested parties involved.

(Reynolds): CDFG is concerned over the direction that this has taken. We're not convinced that an IFIM is the correct approach to get the information we need. We attended the scoping session and it seems to us that the USFWS feels that the IFIM methodology is necessary.

Q: What would you recommend?

(Reynolds): Other methods are available to determine what flows best meet the needs of the fish for migration purposes. IFIM is for the purpose of determining carrying capacity in a stream channel for a target species and age group. Our experience is that it always works better with resident fish. Unless they'll deviate from the normal IFIM technique, I don't think it'll give good migration information.

(Orcutt): Much of that will be born out in the scoping process. There will be ample opportunity to get all concerns expressed and considered.

(Rohde): You have to know what you want out of the study, and understand the limitations of the technique. I don't think we completely ironed out what it is that we want, nor do they know all other alternatives. I think this Task Force should assign a committee to review these and develop a recommendation prior to funding a project.

(Shake): Let's think of what action you want to take, well come back to it.

Agenda item 13: Discussion of FY1994 RFP.

(Bingham): This issue didn't get resolved at the last meeting. In review, a proposal was made to amend the existing system of assigning target group preference points. The existing system is that we assign preference points to target groups. We've had trouble over the years of how to implement the process. The Act requires that we give preference to specific groups. After the TWG has ranked proposals, the budget committee assigns additional points to proposals employing target group. It was felt that this was politicizing the technical ranking process and a duplication of effort. A proposal was made that the process be incorporated into the TWG ranking process; to allow 10 points for projects employing target groups. This was discussed at length by committee at the last meeting. We did not meet full consensus of whether the TWG could award up to 10 points, or whether just giving 0 or 10 points. This issue was not resolved. We chose to forward this issue to this meeting because a couple of key people were not in attendance.

(Shake): Where do we start?

(Orcutt): I support assignment of either 0 or 10 points. I don't think the TWG should make a decision on this non-technical issue. I speak against the sliding scale of 0 through 10 points.

(Rohde): Instead of speaking for the Karuk Tribe, Ronnie Pierce asked me to relay her feelings on this issue. The TWG evaluates all of the criteria on a sliding scale. Each individual rates each proposal. To make this particular item either 0 or 10 focuses too much attention on this issue. She thinks this should be a sliding scale.

(Halstead): If the TWG is asked to assign these points, hopefully the proposers will provide us with specific verbiage of how they'll employ these groups. My staff also develops project proposals but as a Federal agency we cannot discriminate to hire these groups.

(Bulfinch): I see a problem arising that a proposer will hire a token employee to get the full complement of points. I therefore support the sliding scale approach.

(Farro): I made the original motion at the February meeting, and I was adamant that the actual wording of the act be included in the RFP. I also wanted to require proposers to document how they will comply.

(Hillman): I would seek clarification on the issue that brought this subject again. It appears that we're trying to cut out the budget committee. Does this mean they will no longer meet to draw the funding lines, by category? The committee meets each year to discuss this issue. It seems appropriate for the budget committee to continue meeting and working on the annual funding processes.

(Bingham): I agree with Leaf that there should still be a review by the committee to draw funding lines. Although last year we used the absolute technical ranking scores to determine the work plan. The committee recommended that last year. I still think the committee should be a part of that process. At the last meeting, we determined that this assignment of target employment points should be given back to the TWG. Now the only issue is whether it is the full 10 points or a sliding scale. The issue of whether the TWG should be involved has already been decided. I agree with your comment about the budget committee process and that it's needed. We considered funding of KRFRO last year as an example. I would hope that guidance is provided to the budget committee.

(Farro): The FY1994 RFP was supposed to include a statement which stated "if you will be employing the target groups, or will attempt to employ them, please explain." There should be credit given to proposers who tried to recruit target group employees, but were unsuccessful.

(Shake): I suggest that you develop comment on that and give to TWG next year.

Agenda item 14: Discussion on changing the cyclical RFP funding system.

(Shake): This issue was brought up by the Yuroks. Should we table this since there is no representative?

(Rohde): I can't speak for the Yurok Tribe, but basically we've been in the RFP funding cycle each year. Redwood National Park was in a similar situation until they had technical staff evaluate the area and make specific recommendations. The thing that prevents us from going into the request for quotation phase is our inability to fund the TWG to identify specific needs in the basin. If this Clinton money materializes, the Task Force should consider providing funds for the TWG to determine what work should be done. One other issue I've discussed with Walter, there's nothing in the Act that indicates that we have to spend $1 million each year. It appears possible to me, that if we know what needed to be done, we might give an infusion of money to get things done.

(Shake): Regarding funding, we receive an appropriation of Federal funds each year. It has amounted to $1 million each year.

(Bingham): I agree with Bob that we need more money now. I renew my plea to get more money for this program. I invite all of you to go to Congress for

additional funding. The other part of the equation is to keep the concept of watershed based planning before you. There is an interactive process that is necessary. It is critical to consider local input. I feel good about what we and the TWG started.

Agenda item 14: Public comment.

(West): Regarding your last discussion item, speaking for the TWG, we'd be willing to develop a specific RFP for FY1995.

(Dave Solem): Last year at this time I met with representatives of Oregon who said the water was going to be in short supply. The Bureau of Reclamation had to manage water between us and downstream users. In going into this IFIM, it's important that you have all the players there. Even though we use some water, we don't control all of the inflow. We have a tremendous amount of agriculture upstream. Elwood Miller said we have to start at the top of the mountain, and I agree. Unless everyone is there, and we know what we want to do, it won't be successful.

Q: Does the water users protective association speak for all interests?

a: No. There are other diverters and irrigators not represented on that body.

(Thackeray): I have full confidence with these folks in the upper basin. I'm sure that they can come up with a committee that will work with the Task Force. It shouldn't be a problem if we leave it in their hands.

(Farro): Is there an RCD for the Klamath Falls area?

a: No, but ASCS is up here.

(Mary Kay Taylor): I would like to ask who is Diane Higgins?

a: Mr. Pat Higgins' wife.

In looking at one of your handouts (Attachment 7) $204,375 is given to Mrs. Diane Higgins. Is the TWG a self help group? Is she the only person available? It's your area, your decision to choose who you want to educate who you want. Will she teach this philosophy to our children up in this area? I don't like biased, unfair philosophy thrown into education. I wonder if you should take a closer look at who's doing the educating. Great Northern Corporation seems to be receiving a lot of money from this program. How are work groups targeted?

(Shake): The way we develop a work plan, we send out an annual Request For Proposals (RFP) to the public. We also determine funding levels for each restoration category, i.e. Habitat Restoration, Habitat Protection, etc. The proposals are reviewed by the TWG and ranked according to preset criteria. The list of ranked proposals is then presented to the Task Force for final approval. This list then becomes our annual work plan. I do not agree with your comment that our education program is biased. The education curricula are reviewed prior to sending them out for public school use. All points of view are presented. I believe the packages are very good and are being used by other educators in the region.

(Wilkinson): One thing that we determined necessary was education of the needs of fisheries and fish populations. The original curricula was to be used in the lower basin. I'm anxious to use these materials in the upper basin. We have learned that Klamath Co. superintendents don't want biased curricula. The curricula have been peer reviewed. We're trying to ask professional educators to design these education materials. I would suggest that you and I get

together to identify contacts in this area that we can distribute this education material to.

(Thackeray): Education certainly plays an important part in this program, but we shouldn't diminish the fact that teachers teach their personal philosophy of things. This is the concern being expressed. It is imperative that teachers teach without bias.

(Orcutt): You should also address your concern to Humboldt AFS regarding the content of the letter from Mr. Higgins.

(Shake): I'll also offer to make copies of the curricula made available to educators in this area.

(Iverson): There are educators here that can talk about these curricula.

Brian Swagerty, educator Siskiyou County.

(Swagerty): I found the curricula discussed here to be unbiased and a much needed education resource. Diane Higgins' role has been to gather teachers to get input from them in developing these curricula. What I'm here to talk about is to describe what Siskiyou County is doing to develop educational curricula. The solution to these problems is to educate the public over the long term. I believe it is the key thing the Task Force can do. There is a Chinese philosophy that indicates if students are involved with a process, they will learn it better. Education techniques are changing. Memorizing facts and figures is not emphasized any longer. Access to and utilization of information is what is being taught because information changes so quickly now. In Siskiyou County we've developed a watershed education approach called "adopt a watershed." We are developing programs and guides for teachers to enable them to get involved in this type of education. We also use the aquarium incubator project to teach students the needs of the fish. We're educating students on how to become involved in watershed management. Academic and real world educational settings are making the learning experience more effective. This is called the 2+2+2 program. With that, I'll turn this over to Sue Maurer.

(Sue Maurer): Our purpose in coming here is to provide you with some information. There are other funding organizations that will dove tail with the Task Force in developing these educational curricula. The Dwight D. Eisenhower funding program in California is in it's eighth year. We're trying to get all educators to develop watershed educational proposal which could receive $225,000 over three years. These funds are earmarked for math and science. We'll market this curricula under this math/science theme. Native americans, latinos, east asians, blacks, females, physically challenged, and those residing in rural parts of the state are eligible groups. We hope to dove tail this with Oregon education programs as well. Partnerships with U.S. Forest Service and USFWS, and the Karuk Tribe are identified to participate in developing these programs. The idea is to put students into a real-life learning situation like data collection and restoration, so they can enter the working age class, and be prepared to be involved.

(Orcutt): I think we've heard more than enough justification for education. We're seeing the "Adopt a Watershed" program being implemented in the Klamath/Trinity area. Is there a way to integrate Humboldt County in the programs you've described? I'll serve as a liaison between school boards.

(Maurer): We started in Siskiyou County because that's where we're located. We welcome others.

(Holder): I compliment your efforts. I see U.S. Forest Service and other federal agencies being more contract administrators accomplishing future work through local entities, and not our own work force.

(Maurer): If this Task Force endorses this work, it might be appropriate for you to provided us a letter of support. We would include this in our proposal.

(Shake): We'll ask staff to develop a letter of support from the Task Force.

(Swagerty): A letter of support will be helpful after the first cut process. I would ask that representatives of each agency be prepared with a letter as well.

(Shake): I'll ask KRFRO to work with you on this.

*** Action ***

KRFRO will draft a letter of support for use by Siskiyou County Office of Education when seeking additional funds to augment their watershed restoration educational materials.

(Stacy Liskey): Upper basin residents would like to have input to these educational materials as well. Agriculture is not represented. Our part of the basin is very much different than your part of the basin. We have many concerns and believe that we can help you.

(Shake): If we get copies to you can you comment?

a: Yes.

(Shake): KRFRO staff will get them to you.

*** Action ***

KRFRO will send draft watershed restoration curricula, as it becomes available, to upper basin contacts to allow for input from the upper basin agricultural community.

(Craig Bienz): Klamath Tribe. I'd like to comment on your upper Klamath Basin amendment. I'm glad that you've come to discuss these issues with us. The Klamath Tribe recommends that you analyze all of the comments you receive, and make your findings available to the public. The Klamath Tribe will volunteer to review the Ecosystem Restoration Plan with the Water Users Protective Association to reconcile our differences. We ask that you allow us the opportunity to do this and then come back to this Task Force for project implementation recommendations in the upper basin. We realize that you have a short time to review and fund projects this year. We'd like to make recommendations (by consensus) of what projects need to be funded in this upper Klamath Basin area. I don't know that we'll be able to fit your April 14th time line for project proposals. We'd like the opportunity to contribute.

(Farro): I'm unclear on what you're asking. There is no prohibition on upper Klamath Basin projects, and will be reviewed on technical merit. Are you asking for a review of these proposals?

(Bienz): I'm aware of two processes for funding, the Jobs Bill and your recurring funding process.

(Shake): The Jobs Bill program may generate funds but the process will be different. We will get yo involved to the extent possible. You're also invited to submit proposals under our RFP process.

(Bienz): The Klamath Tribe and agriculture members are not specified as target groups. Eligibility is in question because we don't know how we'll qualify.

(Shake): We're locked into our time line for providing proposals by April 14. Regarding eligibility as a target group, the Act is specific on who's eligible. This body could also consider this issue at a later date.

(Reynolds): You don't have to be a target group to compete for annual funding. The Act specifies target groups for people that are impacted by loss of fisheries.

(Ron Hathaway), OSU extension service:

(Hathaway): I got the RFP yesterday. We've not had time to put together an adequate proposal. Is this group considering this? It takes a long period of time to put together a good cooperative proposal. The second question is how we can identify target groups in this upper basin, and whether they can be considered eligible.

(Shake): The Act doesn't specify where in the Klamath basin the Tribes are, and it doesn't specify where fishermen are located.

(Farro): There is another category of targeted groups described as "other persons whose lives are related to Klamath River fisheries."

(Hathaway): Is this primary or secondary employment?

(Shake): Primary employment is the idea.

(Reynolds): If we don't have an upper Klamath Basin amendment, is it appropriate for us to consider funds for this area?

(Shake): Good question. We'll get back to that later.

(West): Regarding time consideration, all proponents have the opportunity to appear in person at the ranking meeting to clarify questions regarding the proposals. This meeting will be announced in advance.

<u>Agenda item 16: Action item on instream flow study.</u>

(Shake): It appeared to me that there is a need for a continuing scoping process. There are concerns regarding representation of upper Klamath Basin interests. Where does the Task Force want to go with this issue?

(Orcutt): Interior is taking the lead on this, and the Tribe wishes to remind Interior that the term "trust responsibility" is something that we don't take lightly.

(Holder): I heard a need for additional scoping meetings to involve all interested parties.

(Reynolds): The Task Force should provide advice and guidance relative to agency studies, but I remain unclear on what the study is trying to determine and who's going to do it. Is it under the auspices of the Task Force? Is it a USFWS initiative? I don't object to the study, but I need to know if this is a Task Force study or a USFWS initiative, with the Task Force functioning in an advisory capacity.

(Iverson): I don't know the answer to your question. Chapter 2 of the long range plan has a policy which calls for an assessment of instream flow needs of all life stages of anadromous fishes below Iron Gate Dam. Specifically, the stretch affected by the dam. The Secretary of Interior indicated that he would direct the USFWS and Bureau of Reclamation to initiate an instream flow study. I was directed to cooperate with the USFWS and BOR to develop a flow study proposal. The scoping process and initial field reconnaissance was to be implemented in FY1993. The first action for the scoping process was a meeting on 3-04-93 with previously mentioned participants. Bob Rohde reported on the proceedings of that meeting. We're still waiting on a report from that meeting from the USFWS-Sacramento Field Office.

(Orcutt): The Hoopa Tribe believes Interior, through its trust responsibility to the Tribes, should be the lead agency.

(Reynolds): The State has trust authority for State fish populations. Is this under the auspices of the Task Force or is it an Interior initiative and is the Task Force advisory?

(Shake): The Task Force has identified this in the long range plan as a need. We sent a letter to the Secretary of Interior saying we need to get on with this. The Secretary's response was to get the USFWS and Bureau of Reclamation together to develop this study. We have many folks that have indicated they want to be involved. The Bureau of Reclamation stated they don't have funds available to get it done. We may choose to use RFP funds to fund it, or there may be Jobs Bill money. What we need to decide is "should we continue with the scoping" to flesh this out? I recommend that the technical folks have more meetings to flesh this out.

(Bingham): Do you feel that a motion is needed to implement this?

(Shake): Yes because of concerns expressed here today.

*** Motion ***

(Bingham): I move that we have an additional scoping session to involve upper Klamath Basin folks and other interested parties, Tribes, Oregon DWR, and California DWR.

Motion seconded.

(Reynolds): We believe a flow study is absolutely needed. We think more information needs to be on the table, allowing selection of a method that may meet our needs better. Before we begin a flow study, we must decide what we're targeting. I support the motion.

(Holder): Did you intend that staff would hold the workshop, or technical folks at the first meeting.

(Iverson): As I understand it, you need specially trained people to act as facilitators. I recommend that they do it. We can arrange this scoping meeting be conducted by trained facilitators.

(Bingham): That will then be incorporated into the motion. Staff will arrange for this scoping meeting continuation, and will provide adequate notification that this will occur.

(Orcutt): We look to Secretary of Interior as having trust responsibility to the Tribes.

(Bingham): I'll add recognition of trust responsibility to the motion.

(Wilkinson): At the public hearing last night, some comments indicated the need to coordinate with the State of Oregon.

(Bingham): My motion is to include all interested parties.

(Reynolds): Unless someone clarifies trust responsibilities, I cannot support it. I understand trust responsibilities relative to Tribal rights to fish, but it's my understanding that States have been assigned trust responsibilities for State resources except where Tribes are concerned.

(Bingham): I was addressing, more, the winter chinook. There are specific trust responsibilities regarding water.

(Orcutt): Yes. And the Secretary of Interior has the trust responsibility. It was not my intent to address the trust authority of the States. Tribes will individually address this.

(Shake): The motion is to continue the scoping meetings.

*** Motion carried. ***

Agenda item 17: Action item on target group/proposal ranking process.

*** Motion ***

(Farro): I move that the TWG, within their proposal evaluation and ranking process, assign up to the 10 points based on the documentation provided by a proposal, on the compliance with Sec. 2-(3) of PL99-552 of their activities in the Program. This is identical to the motion made at the last Task Force meeting.

(Wilkinson): Oregon abstains.

*** Motion carried. ***

Agenda item 18: Action item on how to change the cyclical RFP system.

(Shake): The TWG chair volunteered the TWG to develop a specific FY1995 Request For Proposal for our review. It would outline specific kinds of things that we would send out in the RFP.

(Stokely): In relation to Nat's comments about getting additional funding from Congress, it's essential to have specific tasks in mind. I think it's very important.

(Orcutt): There are bigger funding programs and initiatives that may be utilized. If FY1995 funds are not expended, do they revert back to the Federal general fund?

(Shake): We approve a prioritized list of projects and fund them until our annual funds are expended.

(Holder): I support identification of project priority and getting other funds for cooperative efforts with local communities. It's key to involve local communities and groups.

(Shake): I'll entertain a motion that would state what Barbara said. We also must consider that earlier, the Task Force decided to utilize local watershed CRMPs or planning organizations to help in developing restoration priority. If there are CRMP groups in place, I urge the TWG to contact them.

*** Motion ***

(Holder): I move that we ask the TWG to develop a prototype 1995 RFP which identifies specific and high priority work needed for each subbasin, with special attention given to involving existing planning groups such as the CRMPs.

(Farro): This is a step that we've struggled with for some time. We must focus on need rather than proposals that come to us.

(Holder): This must be done in a timely way so we can make decisions for the FY95 proposals.

(Orcutt): I support concept of the motion, but I'm not sure that it addresses Walt's concerns.

(West): Barbara, your motion is directing the TWG to put together a prototype RFP, and in the process of putting it together we are to involve the CRMP groups from these watersheds. I have a problem with that if that's what you're asking us to do. I'm not clear on what involving the CRMPs entails.

(Bulfinch): The intent is to involve the CRMP groups in developing complementary work to multiply the effect of restoration work in a watershed.

(Rohde): To clarify, RFP verses RFQ's. RFP is what we've done, it is a request for proposals. Walter want's to develop RFQ's, which are Requests for Quotes.

(West): My proposal was to develop a more specific request for proposals for types of work in a specific area. Not to develop an RFQ. You're asking for a full time job by the TWG to develop site specifications. I don't see the transition. I see us writing an RFP stating that we want something like "identifying limiting factors to salmonid production." Development of RFQ will take too much work

(Holder): My motion was to identify types of work and not specific projects.

(Reynolds): Jack is it feasible for the TWG to, with work you've already done, come up with prototype with a list of priority projects (or types of projects) for a subbasin?

(West): I guess we've done that with the prioritized subbasin objectives. As a group, we can pick one area and prioritize objectives. We can flesh these out and develop an RFP for a specific area with specific objectives.

(Shake): Which is it?

(Stokely): Is it a prototype work plan, RFP, or RFQ?

(Bingham): I understand what Walt wants, but don't see that were there yet. The motion by Barbara is the best that we can do right now. We don't have the staff capability.

(Hillman): I feel uncomfortable without first seeking clarification with what the Yurok Tribe wants on this issue.

(Farro): We're taking a step in that direction. People vote by their presence. It's a step in that direction, we can't take a giant leap at this point. I'd like to see us take this step. Walt can offer a motion to direct this further.

(Hillman): There seems to be confusion as to where we're going. Walter had specific concerns, and I don't know what we'd be voting on at this point.

(Bulfinch): The operative word is "prototype" which will be reviewed and developed further by the Task Force.

(West): How about if we develop this in May, present it to the Task Force for your evaluation. You can ask us to proceed with the concept or ask us to change our direction. I see us spending about a day on this issue.

(Reynolds): With the sole proviso that we don't have to approve or reject their work at that time.

*** Motion carried. ***

(Orcutt): Abstain.

Added agenda item: Discussion of how to process the comments received on the upper basin amendment document.

(Shake): I'd like to discuss, not substance of comments we've heard, but the process of how to deal with this information.

(Bingham): I suggest that we do what we did when we got to this place with the long range plan. You'll recall that we put together subcommittees to consider comments by chapter and then redrafted those chapters. The final document emerged as a result of that process. I suggest that we do this again by putting together a subcommittee (including folks from the upper basin) to address these comments, to put together the revised document, and to bring it back to the Task Force for approval.

(Shake): You offer this just a suggestion, no motion. At the end, when you said bring back a document that's been rewritten, "for approval." It seems to me the assignment of the committee would be to summarize comments on the upper basin amendment and to consider the Ecosystem Restoration Plan in order to blend these documents together. This committee would report back with a recommendation on how we should proceed. Small steps are needed.

(Orcutt): We need a subcommittee to address these comments. There were many interest groups including rafters, fishermen, tribes, and irrigators which should be represented. I suggest that the Klamath Tribe and the Klamath Basin Water Users Protective Association meet together to work out their differences on the Ecosystem Restoration Plan then blend it with the upper Klamath Basin document.

(Shake): I agree. That would be the beginning part of the process. I expect internal dialogue to occur up here, which would be followed by a meeting of the combined groups.

(Thackeray): I support allowing the groups to get together up here first. Nat did you recommend that in your suggestion?

(Bingham): I didn't offer a motion. I was allowing for this kind of input. I support a systematic approach, including assigning a committee to formulate comments and report back to this Task Force with a recommendation.

(Thackeray): Are you recommending that these issues be dealt with internally prior to meeting with Task Force committees?

(Shake): Yes. Their local issues should be resolved first among themselves, prior to considering all comments on our documents.

(Reynolds): We can't tell local folks what they will do. If we identify a committee of Task Force members, I'm sure these folks can determine how to develop their positions on the issues. We should decide what it is the Task Force will do, and allow them to prepare how they want to. I think it's a good idea.

(Bingham): The step here is to appoint the committee on the Task Force side, and lay out a process and time line so everyone knows what we hope to do.

*** Motion ***

(Bingham): I move that we form a committee of Task Force members to work on re-drafting the upper Klamath Basin amendment by incorporating public comments and information contained in the Ecosystem Restoration Plan. This is made with the understanding that when the upper Klamath Basin folks and the Klamath Tribe have reconciled their differences on the Ecosystem Restoration Plan, that three people from the upper Klamath Basin and three people from Task Force will come back to the Task Force with a report of how to proceed with implementation of the upper Klamath Basin amendment.

(Bill Kier): The way that this process worked in finalization of the long range plan was all Task Force members were involved. They selected those subjects that they were particularly keen on. We had 2 or 3 members assigned to 4 or so little groups. Because the Task Force groups were small, it was easier for them to schedule meetings. These were done to allow for editing and removal of factual errors, and brought them back to the Task Force for final consideration.

(Shake): We're not in the editing mode yet. We're still deciding how we'll work together. We need to get people together and discuss similarities, and differences. The group will summarize and make recommendations to the Task Force on how to work through the process.

(Hillman): Bill Kier's input was helpful. I believe Nat's intent is for that to occur. If that process hadn't occurred, we wouldn't have the plan today. I'm sold on that process.

(Shake): John Crawford and Craig Bienz, could you contribute your thoughts to this discussion?

(Crawford): I hope that the members of the Task Force did not walk away from last night's meeting with the idea that there is great antagonism between the Klamath Tribe, the water users, and this Task Force. From the beginning there has been an underlying unity between these two groups and this Task Force. I think that unity has been confirmed this morning. Some issues brought out last night were that we don't believe flows flowing down river are "wasted." We know that those flows are needed, hopefully these flows can be set aside and utilized in a more timely fashion for later releases. There was also talk about waste by irrigators. I think that the drought last year brought on a new awareness of water use. By increasing efficiency, we started to dry up the refuges last year. Regarding conversion of public land from private, offsite storage development would require that. The Running Y Ranch is for sale. The primary concern by upper Klamath Basin residents is the immediate conversion of any or all of 38,000 acres to marshes. We question that. A pilot project is recommended. The Bureau of Land Management has acquired 3,000 acres around Agency Lake and will implement some marsh restoration. Mike Orcutt, you spoke of the other interested groups. I believe that most commenters endorsed the ecosystem plan. We all believe that this is a step in the right direction. Where we stand with the Ecosystem Restoration Plan is up to you.

(Shake): The question that I've asked is can you work within the process outlined here? Can you get a group of folks to work with our folks to summarize comments we've received, and to develop a recommendation of how we can proceed. You're asking us to take the Ecosystem Restoration Plan and throw the upper basin amendment document out. If we can get together with you folks and the Tribes to look at all comments and to develop a recommendation for us to consider; is it acceptable and doable?

(Crawford): Would it be the charge of those people to sort through the equity of representation issue?

(Shake): Yes.

(Crawford): Would it be to work out a revised upper Klamath Basin amendment? Or develop a document in lieu of it?

(Shake): I see the work group coming back to this Task Force with a recommendation of how to proceed. We need to work with each other on this task and hopefully develop a product that we can all agree to.

(Crawford): If the committee is to address all of the aforementioned issues, it is appropriate. But not for this group to simply deal with revising the upper Klamath Basin amendment.

(Holder): I think both documents represent a good start, but neither is complete. obviously both documents don't address all the issues. There is a way to develop a document that addresses all concerns, but it may not look like either document.

(Craig Bienz): I was asked to bring the message that the Klamath Tribe will work with the Task Force and irrigators, and not to exclude other interested parties. I can support the motion to develop a 3 member committee of Task Force and 3 member panel of upper Klamath Basin interests to work together to address these issues. We don't know what the commitment of time will be and who will be on the panel. The tribe and irrigators can certainly meet, but who would the 3rd party be?

(Shake): A panel of three members is only a suggestion.

(Orcutt): Couldn't that third person be picked by the Task Force? For us to buy into that, we need review of the Ecosystem Restoration Plan.

(Thackeray): I don't support appointment by the Task Force.

(Bingham): My motion included three Task Force representatives, a panel of six individuals, total. The first phase is for the upper Klamath Basin folks to get together to work out their differences.

(Bienz): This is a priority for us, but it is also the busy season for us and the irrigators. I know we can do this and I believe that this good faith effort can work.

(Comment from the audience): Since Klamath County has made an effort to be involved, I think the County should be identified as a participant.

(Shake): That's an excellent suggestion. We don't want to tell you who the folks ought to be. We simply ask that you folks participate.

(Question from audience): Can a committee of many more people be involved in the first issue resolving process?

(Shake): Yes. We are not going to tell you folks how to do that.

(Todd Kepple): Who decides who's involved in the upper Klamath Basin representation on this first committee?

(Shake): We'll select our three and allow, for example, the Klamath County commissioners to select their representation.

(Bingham): My motion is relative to the entire upper basin not just Klamath County, Oregon. Are the commissioners willing to include the California representatives?

(Crawford): It's a problem because Modoc County may not be represented.

(Comment from audience): There are other interests such as fishermen, rafters, and others that should also have a say in this process. One suggestion is that you sacrifice one of your members allowing four members from the upper Klamath Basin and two from the Task Force.

(Stokely): I suggest three members of the Task Force, one from the Klamath Tribe, one from the Users Protective Association, and one from Klamath County.

(Shake): How about if we include Modoc County in that list, and move on with that?

(Bingham): I'll amend my motion to include Modoc County, with representatives from the upper Klamath Basin and three Task Force members.

(Kepple): As I understood the motion, you said that they would redraft the amendment.

(Bingham): We agreed that the first step would be to collect all comments, and then to develop a recommendation on how to proceed with redrafting the upper basin amendment. This recommendation would be presented to the Task Force. I see an incremental process with a report coming from the committee.

(Kepple): This committee would ultimately redraft the amendment?

(Shake): Depends on what the recommendations are. The group might recommend redraft. Until this group meets, I don't want to say that the amendment will be redrafted. All of us and the upper Klamath Basin folks need talk about it. We have a variety of comments from "stop" to "go with it" and folks need to sort through these comments.

(Bienz): I'm wondering about four representatives from upper basin to sit on this committee. The Klamath Tribe's intention is that everyone will be represented here. I'm wondering if we should go back to the positions to be added to the Task Force, i.e. the Tribe and Klamath County. It doesn't matter if there are two or four. I support having just two representatives.

(Crawford): The irrigator's would be comfortable with Craig's comment if we can be the other representative.

(Bingham): I'm happy to amend motion to two people.

(Bob Byrne): Maybe the committees should be structured after the local issues are resolved between upper Klamath Basin representatives.

(Shake): The suggestion from Craig Bienz was to appoint a committee of two members from the Task Force to meet with two representatives of the upper Klamath Basin. We still have the motion allowing for four representatives, which has now been reduced to three.

(Hillman): I suggest that we go with the two representative idea, because of the amendment to the Act. Other representation determined by us would be arbitrary.

(Bingham): I'll amend the motion consistent with Leaf's suggestion.

(Reynolds): I'll support the motion as long as the upper Klamath Basin folks are all fairly represented in the final analysis. I'm beginning to perceive some sort of idea that we'll track the amendment legislation regarding two representatives after adoption. I support simply getting together with upper Klamath Basin folks to iron out our differences.

(Shake): I support getting the folks to sit together to sort the issues out. The charge is to summarize the comments received in testimony and writing, to develop a set of recommendations for the Task Force on how to proceed with the amendment process. As John Crawford said, they can have recommendations on all issues mentioned earlier in this discussion. Preceding that, the local folks would get together to resolve issue differences.

(Bingham): That's the motion.

(Shake): The motion is for three representatives from each.

*** Motion carried. ***

(Shake): We'll adjust the agenda a little bit because some folks need to leave early. We'll move up agenda item 21 to this time.

Agenda item 21: Status of the Klamath River Information System. (Bill Kier)

(Kier): The Klamath Information System was supported by this Task Force, but is funded from another source. The origin of this project goes back to an early discussion with Ron Iverson. Ron asked us if we were familiar with EPA's reach file system. It became clear to us that we needed to develop some way of compiling information for this fishery restoration program. As we got into the project we realized that there is a lot of information available but it's scattered everywhere. An element of your long range plan is the development of a coordinated information system. The policy states that you will explore operating this system based on the EPA reach file system. We developed a proposal and submitted it under your name to the California North Coast Water Quality Control Board. We submitted the proposal back in 1990 and money became available late 1992. I had intended to use Patrick Higgins because of the energy he displayed in developing the long range plan. I've also hired Jan Derksen. The team is Pat, Jan, and me. Jan is a computer scientist. The grant was made to the USFWS which is contractually obliged to California to develop this Klamath Information System, utilizing the EPA Reach File system. The Reach File is a nation-wide system of identifying water bodies by unique reach unit number. The number is similar to a zip code. USFWS has contracted with Kier Associates to provide a demonstration of usefulness for this program. From EPA's standpoint it is a large scale demonstration of their reach file and its usefulness for water quality improvement and fish restoration information management. It's an empowerment of the restoration program by making a link to the water quality programs of California. The grant requires a 40% non-federal match. The match will come about largely with the involvement of community based resource recovery groups. There is a lot of eagerness to help and be involved through volunteer work. Volunteer work is how the match will be made. We're working in the first tasks of the agreement. We've recommended that Reach File 3 be selected. The question was "are we talking about developing the computer system in a PC or mainframe environment?" The answer is that PC capability allows for us to utilize these. Now we're trying to determine equipment and

software needs and availability. We're initially trying to develop an information sharing system, not a GIS system, but we hope to bring it to GIS level. Ron developed a second draft proposal that contemplates integrating it with U.S. Forest Service and other GIS systems. On that point, a USFS Fish Habitat Restoration publication (No. 11) talks about moving fish habitat data into a GIS. The article describes what happens when you get fish habitat types arranged by the GIS system and then what happens if you focus on particular habitat types. This project is a good example of how to determine whether we're gaining or losing in habitat restoration. I see great potential for involving the upper Klamath Basin folks in developing a complete system for the Klamath basin. We're about 25% along with the contract, and we'll be pleased to come back whenever you wish.

Q: Is this system going to be tied into the California data monitoring system?

(Kier): Yes. The reach file system wraps in the standard stream monitoring databases (storet, bios, etc.). I don't know which data sets are going to be useful to all players in the system. If data is not included, the location of the data will be cited.

Q: Are you coordinating with the other GIS demonstration project that we funded a few years ago?

(Kier): We will. Frankly, I've lost track of that project. We're trying to come up with a data management system, not focusing directly on GIS. Data storage, compilation, and retrieval, for all to use is what we're after.

Agenda item 19: Green Sturgeon project update.

(Orcutt): I will report on the Hoopa green sturgeon tagging/monitoring project. So far we've purchased tags and identified a tagging protocol. We have a commitment from the Yurok Interim Council to implement this. We hope to tag and release green sturgeon on the Hoopa and Yurok reservations this year. There is an effort by CDFG to close the inriver sport fishery for green sturgeon. I understand that the Department will go to the State Fish and Game Commission to close the fishing season. That's something that we should be aware of. Lately there has been discussion of listing this species. We all should be aware that this is in folks minds. We're trying to get a handle on the status of the stocks. We're pursuing getting funding from EPA for considering this species as an indicator of water quality.

Agenda item 20: Update on hatchery/wild stock review. (Reynolds)

(Shake): Are agenda items 20 and 25 two separate issues?

(Reynolds): I would like to report on them together. One of the issues has to do with the effects of artificial production on natural stocks. We've asked for parties interested in this evaluation effort to notify us that they want to be involved. Regarding the evaluation of the basin's rearing projects, we want to present you with a draft report of our findings and conclusions. We'd like to receive your comments on this draft document by May 1. We'll develop a final report and send it to the 3 chairs. I've asked Harvey Reading to make a presentation to you.

Harvey Reading: (Paraphrased the attached report, Attachment 8).
We want to emphasize that we think it is unreasonable to assume that populations can be maintained without use of hatcheries. The loss of access to historic habitat requires that hatcheries be operated to mitigate for this loss.

Q: Would excess hatchery eggs be used for classroom incubators?

(Reading): That has potential, but the disposition of these fish is another subject.

(Reynolds): The Department has been criticized for overplanting and we must draw a line on releases unless they are attributed to the hatchery production limit.

(Orcutt): Siskiyou County has about 24 classrooms with coho eggs. I don't recommend killing them.

(Reynolds): As an appendix to this final report we'll include the minutes of the two meetings of the hatchery review committee.

Agenda item 22: Report on the survey of all projects funded to date. (Alcorn) (Attachment 7)

(Alcorn): We were asked to develop this report at your February meeting. This is an objective survey of each project funded to date with Federal restoration program money. Each project is listed by restoration category, last name, then by fiscal year. The Technical Work Group will have this information to use while ranking project proposals in this year's process.

Agenda item 23: USFS land management plans. (Holder)

(Holder): I would like to schedule more time on the next agenda for a briefing from 6 Rivers and the Klamath National Forest staffs. We'll be better positioned to providing briefing materials by then. We're close to having a draft Land Management Plan (LMP) for the Klamath National Forest, for public review. You'll recall that we developed alternatives from input from public, timber industry, and local interest groups. All were involved in our multi-use planning teams. All were involved in developing alternatives. We began looking at four multi-use alternatives and compared similarities. We looked at all things the public told us were good ideas. We've added a number of leading edge technologies. A number of land allocations have been made. We've developed standards and guidelines on land management to protect fisheries resources. We've received good feedback on these protective measures. Regarding timber management, what we're proposing on the Klamath National Forest is drastically different from in the past. This should result in a completely different timber output. Clearcutting is a thing of the past, except in salvage harvests. We can consider these ecological areas of high value. For 15 watersheds, we've deferred any activities until specific watershed recovery criteria are met. We're expecting to have our draft published by May, 1993. At that point, we'll enter a formal input process. The final process will take about 9 months for review.

Q: Are you going to consider the last report to Judge Dwyer by Jack Ward Thomas in development of your plan?

(Holder): It's still in the scientific arena, but many issues arise quicker than the management plans being developed. The answer is no.

(Shake): A factor that may impact those plans is the President's forest conference this Friday. We fully expect to see salmon discussed as an issue. We'll put a more comprehensive briefing on your plans for next meeting agenda.

*** Action ***

Place on the June agenda, a briefing on the U.S. Forest Service's Six Rivers and Klamath National Forest Land Management Plans.

Agenda item 24: Proposed 1994 activities by participants.

U.S. Department of Agriculture:

(West): We went through this same reporting process last year at this time. I understand that the intent is to allow the Task Force and TWG to be aware of what will be implemented in the coming year. It's not good timing for the U.S. Forest Service process. The reality of the FY1994 program is unknown. We lost about $350,000 in the FY1993 budget. The proposed FY1994 fisheries program budget is $2.075 million. We don't know if it will be funded in entirety. If we meet our program goals, we'll have a better chance of getting funding. Forests that don't meet commitments get punished the following fiscal year.

Q: Regarding your spring chinook initiative, is that in the base budget proposal?

(West): It's in the total proposed program. You will recall the total program was to ask for $1.7 million per year to implement it. Last year we got $300,000 for work in the Salmon River drainage. We've parlayed that to about $450,000. This year there is an earmark of about $400,000 for spring chinook restoration work. I don't know what the end result will be.

U.S. Department of Interior:

(Shake): I'll just begin with a broad fiscal year overview. The USFWS fisheries should do fairly well in FY1994. We have no reason to believe that Klamath funding would not be in the FY1994 budget. There may be some carryover money from '93 Jobs Bill funds. Many of these projects will impact the Klamath Basin. All of the resource agencies have an opportunity now to benefit from the recent Department of Agriculture and Department of Interior Secretaries tour of the area. The opportunity is before us. In addition, the USFWS has determined to establish an office in the Klamath Falls area to have a mix of USFWS representatives from different divisions to work with all other interests to try to prevent catastrophes from occurring. There is substantial local interest for establishment of this office. This office will be looking at the entire Klamath ecosystem perspective. This will provide another opportunity for us to cooperatively work together.

(Stokely): The executive order mentioned earlier proposed elimination of one third of all Federal advisory committees, except those that are identified by statute. The order directs a review of these committees with a view toward consolidation.

(Bruss): The executive order was signed Feb 10, 1993. The order also mandated that the Office of Management and Budget (OMB) look at this order to work up some detailed findings. These findings indicate that over 1,100 committees exist, costing over $100 million per year. We were asked to draft a justification for the federal advisory committees operating in the Trinity Restoration Program.

(Shake): We received the same request for the Klamath River advisory committees and our response was that we recommend that the Task Force and Klamath Fishery Management Council remain in effect.

(Stokely): The Congress would have to amend the Act to eliminate statutory advisory committees. There would be a lot of work involved.

(Alcorn): I have a report prepared on other Department of Interior activities to occur in the Klamath Basin in FY1994. To save time, I'll attach this report to the minutes (Attachment 9).

National Marine Fisheries Service (NMFS):

(McInnis): I'll echo many comments that Jack West made regarding FY94. It's too far off. Our region still doesn't have its budget for 1993. The activities that the NMFS is involved with in the Klamath River basin are activities funded through CDFG under Anadromous Fish Act funds. We expect about $280,000 to be available next year. Most of it will go to mark and recapture of fall chinook and to tagging IGH fall chinook. We expect to continue our staff support on the KFMC and the PFMC tech teams, and will implement recommendations of PFMC regarding ocean salmon management with cooperation from Oregon and California. We're committed to collecting information to reduce the impact of bycatch on salmon populations. An observer program on the whiting fleet will be implemented. In addition to that, we're involved with States and the Coast Guard in enforcement of management regulations and the high seas gillnet laws. Last week we received a petition to list coho salmon as endangered in all areas south of San Francisco. Judging from our shift of activities with the winter run listing, if the petition is accepted, we can expect a shift of our activities.

(Shake): There has also been a petition for listing the South Fork Umpqua sea run cutthroat.

Hoopa Valley Tribe:

(Orcutt): The Tribe will continue to participate with KFMC, the Klamath and Trinity Task Forces, and will assist in developing an EIS for implementing the CVP Improvement Act. We'll follow the issue turning over CVP operational authority to the State of California. We're also working with the World Wildlife fund. We've completed the needs assessment phase of that and we're going for full funding for '94. Development of an Integrated Resources Management plan is underway. Biodiversity and economic sustainability, are critical to maintaining self sustainability. This is one major effort that we will try to get underway.

Karuk Tribe:

(Rohde): The Karuk Tribe is in it's 4th year of establishing a department of natural resources. We see opportunities to provide training to our staff, and may take on an individual to learn environmental monitoring techniques. We will continue monitoring the mainstem Klamath River. We worked cooperatively with CDFG and the U.S. Forest Service doing escapement estimates. We're hopeful that we will have an opportunity to do this in lieu of operating the Salmon River weir. The Salmon River Restoration Council was supported by the Task Force as a community based restoration organization. This is the first year of our data collection effort to conduct water temperature data in mainstem Klamath River. We look forward to developing better coordination with CDFG and the USFS throughout our ancestral territories, and will continue to work with the other Tribes.

(Reynolds): Have you detected any reluctance for CDFG to work with you?

(Rohde): We were all drawn together in last year's low water situation. Biologists were more than willing to cooperate and work together. It also worked well last fall while surveying the Salmon River basin twice per week.

(Reynolds): I hope that it continues and want you to know that it's our overall intent to keep everyone involved.

CDFG:

(Reynolds): The basic biological work that we do will continue as last year with Paul Hubbell and Ralph Carpenter. We'll continue our work on the

hatchery/natural stock interaction issue, and try to get a handle on salmonid life history in the Klamath River estuary. We're looking at a funding reduction next year. We're losing our anadromous fish act monies and will take reductions in ocean management and Klamath/Trinity projects. We'll be slower in getting project reports, and may reduce our efforts in the South Fork Trinity River. I think that we're secure until the middle of Federal FY1994. We're taking severe reductions in anadromous salmon/steelhead programs. We'll experience funding reductions from environmental license plate, tidelands and oil monies. We're looking at a rather large reduction in our programs. The state-wide reductions may impact the Klamath and Trinity River program. Our habitat restoration projects will probably be left at the same funding level as last year. Some of the things we're trying to do in the Klamath/Trinity systems include trying to support education programs by expanding the "adopt a watershed" program. We're hoping to finalize guidelines for classroom incubator programs.

Trinity County:

(Stokely): About two weeks ago the Bureau of Reclamation (BOR) forecasted Trinity Lake with lower carryover than last year. BOR is going to be exporting very little water out of the Trinity basin. Most of the water will be used to keep Lewiston Reservoir flushed of warm water for temperature control in the Trinity River and to dilute acid mining drainage. The total export should be less than 300,000 acre-feet. Roger Patterson decided to increase carry over storage in Trinity Lake to assist the economics of Trinity County. We're going to request a minimum lake level regime to allow economic stability. Instream flow releases should total 340,000 acre-feet into the Trinity River, and may be as high as 355,000 acre-feet. The flow regimen will be 3000 cfs in May. Other interests have been expressed regarding flow releases during fishing season. We'll also work on EIS for implementing the CVP Improvement Act. We'll also deal with encroachment of riparian vegetation. The Trinity River Restoration Program proposes to modify some of those areas. There is much local opposition to removal of riparian vegetation. The Trinity program will have an RFP going out in the next couple of weeks. The County Board of Supervisors will consider the Trinity County Home Rule Coalition. The Coalition is an effort to get the county more into the drivers seat in management of federal lands and resource use. It's an effort for counties to effect change at the local level.

(Thackeray): This is a concept of working with Federal and State agencies to achieve what ought to be done in each county. Federal agencies are under no obligation to operate with counties unless they have a comprehensive land management plan. We see a good working relationship between the USFS and the BLM. I've concluded that U.S. Forest Service can be a great benefit to counties, and vice versa. It's a working relationship where they work together. NEPA requires this cooperation, i.e. working with the people. With new Surface Mining and Reclamation Act (SMARA) rules and regulations, the State indicated that the Counties can be responsible for implementation. Our county is leaning heavily that we don't do anything much different than what the U.S. Forest Service is doing. BLM has proposed extensive land exchanges in the Shasta Valley, which we've opposed because of the net loss of tax base. The time has come for counties to work together with agencies in land management planning issues. Siskiyou County looks at this as a positive thing.

(Stokely): BLM has agreed not to buy land in Siskiyou County if the local government determines it's unacceptable. This is a good example of local decision making. The Grass Valley Creek buy out by BLM occurred this year.

Siskiyou County Fish and Game Commission:

(Bulfinch): I was asked to serve as a liaison with the Commission. I've attended a couple of their meetings. The Shasta Valley CRMP (SVCRMP) is progressing rapidly. Some landowners are pulling out of agriculture and selling to land developers. The CRMP proposed projects to fence 11 miles of stream, which are progressing quicker than the CDFG can develop the contracts. The CRMP is also working on initiating a pulsing flow to move smolts out of the Shasta River this spring. They're also working on having a staggered ditch opening at the start of the irrigation season so the river won't go dry right away. The Fish and Game Commission membership has almost completely turned over. About $2,000 was approved for a group wanting to plant bitterroot brush in Modoc County. The Siskiyou Fish and Game Commission has about $30,000. So they have funds for small projects, they need people to put in project proposals.

Humboldt County:

(Farro): Gravel extraction issue has heated up in Humboldt County. This issue is more pertinent to the Eel and Mad Rivers. The Humboldt County Fish and Game Commission is finding money available because they no longer fund the operation of Prairie Creek Hatchery. They are deciding how to spend this money.

Agenda item 26: Public comment.

No comment.

(Shake): I want to identify the Task Force members who will meet with upper Klamath Basin group. George Thackeray will chair the committee, Keith Wilkinson and Mike Orcutt will also serve as representatives. We'll send a letter to the Klamath County Commissioners, Modoc County Board of Supervisors, and the Klamath Tribe regarding this work assignment.

(Shake): Regarding the draft letter to be sent to the KFMC has been passed out to each of you. Get your comments to Ron by tomorrow, he'll finalize it and I will transport it to the KFMC for its April 5 meeting.

Agenda item 27: Identify future agenda items.

(Shake): Give your proposed agenda items to Ron.

Agenda item 28: Set meeting location for June meeting.

The meeting will be held from 8:00 am, June 15th, to 12:00 noon, June 16th, in Yreka, California.

Agenda item 29: Meeting date and location for fall, 1993 meeting.

The meeting will be held in Hoopa, California, on October 5-6, 1993.

(Shake): I'd like to thank staff for putting this meeting together. I'd really like to thank the folks from the Klamath Falls area. We appreciate you attending our meeting and for providing us with comments. We do want to work with you folks.

Meeting adjourned.

Attendance roster:

Name:	Representing:
Doug Alcorn	USFWS
Joseph Allen Sr.	C.M.P.T.
Sherm Anderson	Self
Emily Barlow	Senator Packwood
Rick Bastach	Oregon Water Resources Department
James E. Beck	Self
Craig Bienz	Klamath Tribe
Tim Bowen	Tule Lake Growers
John "Chip" Bruss	U.S. Bureau of Reclamation
Jim Bryant	U.S. Bureau of Reclamation
Inger Burns	Self
Thomas Burns	Self
Bob Byrne	Self
Mike Byrne	Lava Beds Resource Conservation District
Jim Carpenter	Cell Tech
John Crawford	KBWUPA
Robert Crawford	Self
Jeff Connor	U.S. Bureau of Reclamation
Earl Danosky	Tule Lake Irrigation District
K. Debgardo	Self
Jean Elznor	Klamath Co. Board of Commissioners
Dick Fairclo	Self
Fred Fisher	Self
Bob Flowers	Self
James Flowers	Ady Dist. Imp. Co.
Lewis Flunber	Self
John Fortune	Oregon Dept. of Fish and Wildlife
Frank Goodson	Klamath Basin Waterfowl Association
Francis Hahn	Pelican Marina
Bill Haight	Medford District Bureau of Land Management
M. Hartfield	OSU Extension
Howard Hasser	TID
Ron Hathaway	OSU
Dara Heath	Self
Wilma Heiney	V.P. for Women for Agriculture
Deborah L. Herrera	Confederated Modoc and Paiute Tribes
Ron Hicks	BLM
Nancy J. Huffman	Modoc Co. Supervisors
Ron Iverson	USFWS
Leigh Johnson	Congressman Bob Smith
Roger Johnson	USFWS, Klamath Refuge
Dorothy Kandra	Women for Agriculture
Steve Kandra	KID
James R. Keller	City of Klamath Falls
Todd Kepple	Klamath Herald and News
Rod Kucera	Klamath Co. Farm Bureau
Francis Landrum	Self
Jack Liskey	KDD
Tracey Liskey	Farm Bureau
Kerry Locke	OSU Extension
Lynn E. Long	Oregon Grains Commission
Sue Maurer	Siskiyou County Office of Education
Brent Meisner	Self
Gary Nichols	Self
Jack OConnor	Self
Jim Ottoman	Self
Gary Owen	Van Brimmer
Felice Pace	Klamath Forest Alliance

Name:	Representing:
David Peterson	Self
Don Rajnus	Self
Harvey Reading	California Dept. of Fish and Game
Teresa Rennick	Self
Joe Riker	City of Klamath Falls
Chad Rott	Self
Don Russel	Self
Kenneth A. Rykbast	Oregon State University
Monte J. Seus	Klamath Basin Water RAC
Dotte Shaffer	Democratic Committee
Dave Solem	Klamath Irrigation District
Sid Stanton	TID
Brian Swaterty	Siskiyou County Office of Education
Mary Taylor	Oregon Farm Bureau
Gordon S. Thompson	Self
Rodney Todd	OSU Extension
Paul Tschiizky	Tule Lake Grange
Sally Urus	Self
Joe Vacterine	Self
Dave Vogel	VES
Bev Weissman	U.S. Fish and Wildlife Service
Charles H. Wells Jr.	Self
Jay Wilder	Self
Desma M. Williams	BIA
Roxanne J. Williams	Confederated Modoc and Paiute Tribes
William Winchester	Calif. State Water Quality Control Board
Bill Wood	Self
Don Zupan	Oregon Trout

ATTACHMENT 1

FINAL AGENDA FOR THE MEETING OF THE KLAMATH RIVER BASIN FISHERIES TASK FORCE KLAMATH FALLS, OREGON MARCH 30-31, 1993

March 30, 1993

1:00 pm	1. Call to order and adoption of agenda.
1:05	2. Introduction of Task Force members.
1:10	3. Explanation of background and purpose of this meeting. (Shake)
1:30	4. Adoption of minutes from the February 3-4, 1993, meeting.
1:45	5. Report on the Clinton Administration Jobs Bill and how it may relate to the Klamath Fishery Restoration Program. (Shake)
2:00	6. Briefing on Upper Klamath River Basin issues, irrigators' perspective. (John Crawford)
2:30	Break
2:45	7. A report from Bureau of Reclamation - Klamath Project on their operating plan for 1993. (Mike Ryan)
3:15	8. Briefing on Upper Klamath River Basin issues, Klamath Tribe's perspective. (Elwood Miller)
3:45	9. Public comment on preceding agenda items.
5:00	Adjourn for dinner.
7:00 pm	Reconvene.
7:05	10. Explanation of background and purpose of this meeting. (Shake)
7:25	11. Public comment on the upper basin amendment to the long range plan for the Klamath River Basin Conservation Area Fishery Restoration Program.
10:00	Adjourn meeting for the day.

March 31, 1993

8:00 am Reconvene.

8:05 12. Update on the instream flow study proposal by the Department of Interior, followed by Task Force discussion of scoping involvement. (Iverson)

8:20 13. Task Force review/discussion of the FY1994 RFP with emphasis on resolving the target employment group incentive points issue.

8:45 14. Task Force discussion of changing present cyclical RFP system. Specifically, discussion of what needs to be done and how the USFWS should go about soliciting bids for work identified.

9:15 Break.

9:30 15. Public comment.

10:15 16. Action: Task Force recommendation on level of involvement in the scoping phase of Interior's instream flow study.

17. Action: Task Force recommendation on how to incorporate the target employment group criterion into the project proposal ranking process.

18. Action: Task Force recommendation on how to change the cyclical RFP project selection process in order to identify critical restoration needs and select projects to meet these needs.

11:00 19. Update on green sturgeon study by Hoopa Valley Tribe. (Orcutt)

11:20 20. Update on hatchery/wild stock review committee. (Reynolds)

11:40 21. Update on Klamath River Information System. (Bill Kier)

12:00 Lunch

1:00 pm 22. Evaluation report for all restoration projects funded by the Task Force from FY1989 to date. (Alcorn)

1:15 23. U.S Forest Service will provide a briefing on the Klamath and Six Rivers land management plans, if available. (Holder)

March 31, 1993 - Continued

1:45 24. Proposed 1994 activities working toward achieving objectives of the long range plan:

U.S. Department of Agriculture. (Holder)

U.S. Department of Interior. (Shake/Alcorn)

U.S. National Marine Fisheries Service. (McInnis)

Hoopa Valley Tribe. (Orcutt)

Karuk Tribe. (Hillman)

Yurok Tribe. (Lara)

California Department of Fish and Game. (Reynolds)

Others (Counties, commercial or sport fishing communities, etc.)

3:00 Break

3:15 25. Hatchery evaluation committee report. (Reynolds)

3:30 26. Public comment.

4:30 27. Recommendations for future agenda items.

28. Set meeting location for June, 1993 meeting.

29. Set meeting dates and location for fall, 1993 meeting.

5:00 Adjourn meeting.

Tue, March 30, 1993 Upper Klamath River and Basin

I. Upper Klamath River and Basin

The City of Klamath Falls supports the ecosystem restoration plan proposed by the Klamath Basin Water Users Assoc. as the most likely to address the problems and concerns that the Klamath River Task Force has noted in the proposed amendment. This ecosystem plan is based on scientific data and does not have the impacts to the economic stability of the upper basin communities as the amendment appears to have. This is due to the fact that the study that led to the original amendment did not adequately address the uniqueness of the water quality parameters that exist in the upper basin and on which numerous water quality and quantity studies have been conducted.

As a background I would like to review briefly the hydrological and water quality characteristics that are unique to the watershed. First, the problems identified by the Klamath River Task Force have been present ever since the formation of the Upper Klamath Lake. The lake was formed already eutrophic and remains so today. The so-called hyper-euthrophic condition that is said to exist now is largely a result of the physical parameters of the lake and its watershed, plus the impacts of the mono-culture algae growth.

The parameters involved are the depth of the lake and large shallow bays and the slowness of flow from lake region down to the Keno stretch (Lake Ewauna) and the head of the Klamath River. These result in higher water temperatures that with the presence of the naturally high nutrient loads of the water provide excellent conditions for algae growth in the lake and the flatter sections of the river before Keno.

II. Historic Perspective:

The Upper Klamath Lake and Klamath River Basin waters are high in nutrients and, because of the flow regimes and shallowness, have had temperature and low D.O. problems. Both the 1854 Railroad Survey and Fremont's report indicate that during the summer when they were in the area there were algae growth, smells and tastes typical of low D.O. in the lake. The natural waters of the area are noted as being high in nutrients and minerals i.e. phosphates, arsenic, nitrates, etc. High pH's are also present in the surface waters of Upper Klamath Lake and Lake Ewauna during the periods of high algal growth. This is due in part to the biological impact of the algae on the CO2 and buffering capacity of the water. Even with the impacts of irrigation developments and man's presence, the natural background levels of nutrients and the physical water parameters are responsible for the greatest amount of the concerns expressed regarding the water quality in the Klamath River.

Even back in the 1950's and early 1960's, when there were water quality concerns because of fish kills, waste water discharges from Cities and other rural areas (either from treatment plants or septic systems), possible industrial discharges, and log storage occurring in Lake Ewauna. A multiple year study concluded that: "The largest BOD loadings in the Klamath River waters of Oregon come predominantly from the natural aquatic life in Upper Klamath Lake. The highest average BOD loadings occurred at the head of the Link River.... This is (located) above all significant domestic and industrial waste sources. ... Chemical, physical and biological activities in Upper Klamath Lake dominate the water quality of the Klamath River." "All of the man-made BOD loadings in the basin are quite insignificant when compared to the BOD of naturally occurring organic materials emitting from Upper Klamath Lake. Lake Ewauna and the Klamath River down to Keno serve as a giant oxidation lagoon for both natural and added BOD loadings." (Oregon State Sanitary Authority Final Report 1964) This same study noted that while there was a definite D.O. sag sometimes in Lake Ewauna and the Klamath River to Keno, there is complete recovery at the Big Bend Power House station.

It would appear that the D.O. problems plus temperature, foam and smell problems noted at Iron Gate and other reservoirs are local phenomenon typical of reservoirs and algal populations and not the sole result of the Upper Klamath Lake.

III. Present:

The Klamath River has been designated by Oregon DEQ as a water quality limited stream, based primarily on the nutrient loads, even though water quality limits are predominantly due to naturally occurring loads. DEQ has been studying the river to establish the Total Maximum Daily Loads to be placed on the river, but have not been able to come up with appropriate limits. Existing waste water discharges from the City of Klamath Falls treatment plant are much less than existing background nutrient levels and thus are actually diluting the nutrient load by about 3 million gallons a day. The City has even been studying to see if it wants to continue to discharge to the river or if it should remove this amount of "purer" water from the system and just let the natural nutrients flow down the river.

While there is no question that there are water quality problems with the Upper Klamath Lake and the waters down to Keno, what is the Task Force going to do about the naturally occurring quality problems that have been present since the beginning of the River and watershed? The waters were never

pristine, pure waters; yet fish (Trout) still thrive in the upper Klamath River. In fact John Fortune often refers to the stretches below the Keno dam as " A blue ribbon trout fishery" (personnel communication). How could this be if there were as severe a water quality problem as intimated by the Task Force and its proposed amendment?

March 30, 1993

ATTACHMENT 3

Testimony of Nell Kuonen (503)882-8386
11800 Tingley Lane
Klamath Falls, Or 97603

Thank you for this opportunity to provide input.

I was a Klamath County Commissioner for eight years. I am also the immediate past Chairman and Federal Representative on the Klamath River Basin Compact Commission. I offer these two facts as assurance to you that I have been, and am now, still very interested and concerned for the future of this great basin.

I oppose the proposed amendment to your Restoration Plan. I was supportive of the plan as it was originally presented to me. I can no longer offer that support without compromising the terms of the Klamath River Basin Compact.

The Compact was designed by men of real vision and ratified by both California and Oregon Legislatures and the Congress of the United States 36 years ago. It has served the area well. The terms of the agreement are specific and easily understood. The boundaries are specific and easily determined. I have attached a copy of the Compact with a map showing these boundaries. Because the terms of the Compact were given many long discussions, written, reconsidered and rewritten 10 times in as many years, I have enclosed an historical account for your information. As it is equally important, I have attached a copy of the Re-Affirmation of the purposes of the Compact signed in 1990 by both the original members and the members of the Compact at that time.

This information supporting the terms of the agreement should convince even the most skeptical that the Compact did, and does, serve the needs of the people of this basin. We cannot comply with both the Compact and the amendment you are proposing.

In previous meetings I have suggested that your restoration program, as originally planned, and the Compact can and should work together for the good of all. Your amendment is a violation of the terms of the Compact which is the law of the Upper Klamath River. I cannot support the proposed amendment and again, respectfully, request that you return to the position that allows cooperation rather than conflict. We should be planning, together, for additional water storage so that in years when we have good snow pack and rain, we can save it for better utilization of this precious resource.

Again, thank you for holding this meeting for public input.

Nell Kuonen

THE BASIN

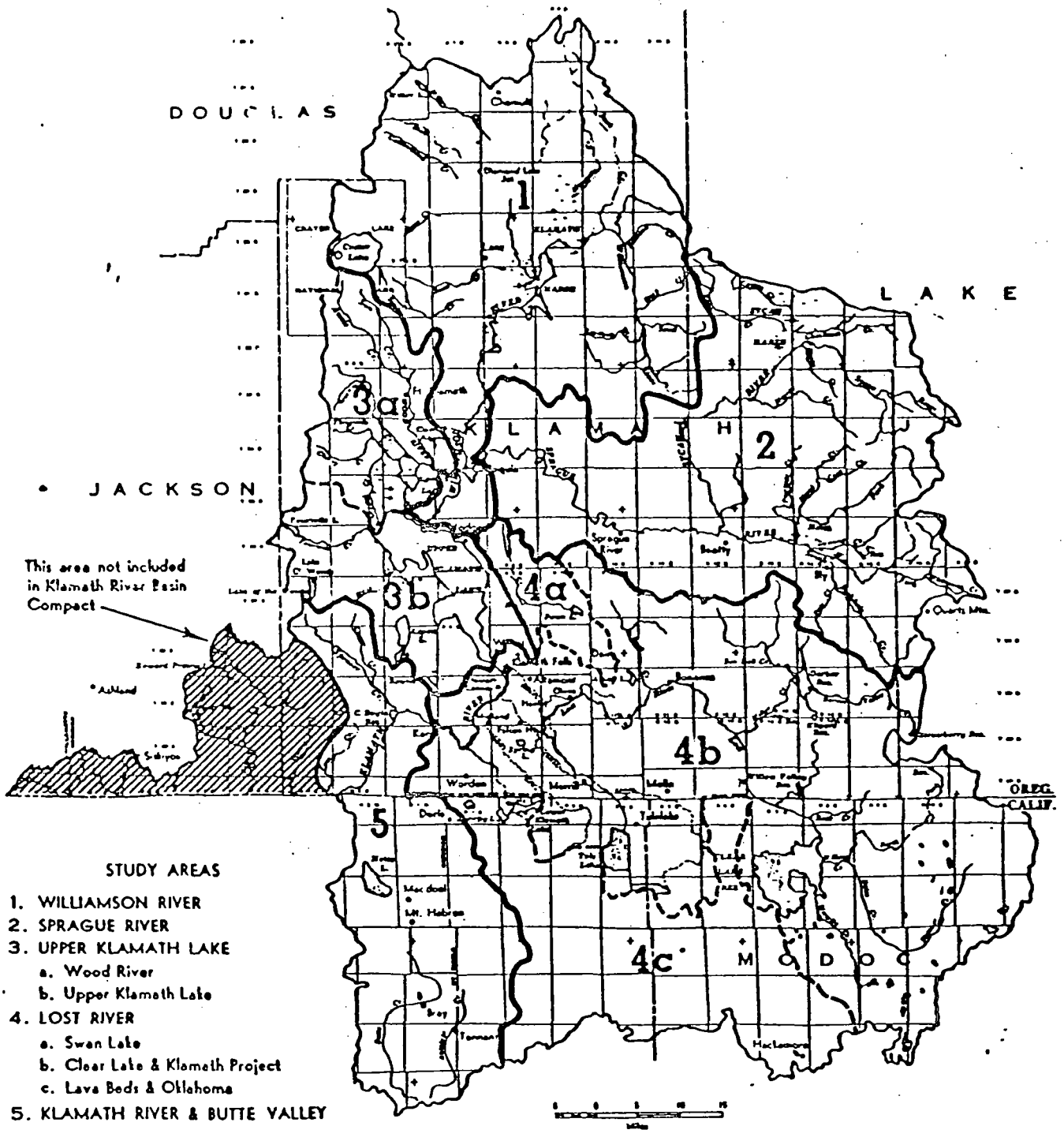

FIGURE 1. Klamath Basin.

KLAMATH RIVER BASIN COMPACT AREA

"THE KLAMATH RIVER BASIN COMPACT"

[redacted] REFERENCES TO THE COMPACT SAY "IT WAS RATIFIED BY THE STATES OF [redacted]EGON AND CALIFORNIA AND THE CONGRESS IN 1957". PERIOD!
THAT'S A TRUE STATEMENT BUT IT OVERSIMPLIFIES A VERY COMPLEX COMPROMISE THAT TOOK YEARS TO ACCOMPLISH. THE HISTORY OF THE COMPACT ACTUALLY STARTS BACK AT THE TURN OF THE CENTURY.
THERE WERE LOTS OF PARTICIPANTS TO THE ISSUE. THE UNITED STATES WANTED TO SETTLE THE WEST. PEOPLE FROM THE EAST AND MID-WEST WANTED TO OWN LAND. ONE OF THE MOST IMPORTANT DIFFERENCES IN LIVING HERE AND ANY OTHER PLACE IN THE WORLD IS THAT HERE IN AMERICA ANYONE MAY OWN LAND.

WHEN THE SETTLERS FIRST LOOKED DOWN INTO THE KLAMATH BASIN - WHETHER THEY STOOD AT THE TOP OF GEARHART MOUNTAIN LOOKING WEST, OR AT THE TOP OF WALKER MOUNTAIN, NORTH OF CRATER LAKE, LOOKING SOUTH, THEY DID NOT SEE THE BEAUTIFUL, MANICURED FARMS WE SEE TODAY. THEY DID NOT SEE [redacted] GRAIN FIELDS OR POTATO FIELDS. THEY DID NOT SEE FAT CATTLE HAPPILY GRAZING IN GREEN PASTURES. THEY SAW RIVER, MARSHES OR SAGE BRUSH. BUT THEY SAW POTENTIAL!
THE KLAMATH BASIN IS A HIGH DESERT. WE ARE RIGHT AT 4000' WITH AN AVERAGE RAINFALL OF 14". THE SETTLERS SAW WATER ALRIGHT, THIS BASIN IS BLESSED WITH WATER. THEY SAW WHAT IS NOW CALLED THE SYCAN, THE SPRAGUE, THE WOOD & WILLIAMSON AND THE GREAT KLAMATH MARSH AND IN THE OTHER DIRECTION, THE LOST RIVER AND ITS MANY TRIBUTARIES.

AS MAN HAS DONE FROM THE BEGINNING, THEY BUILT THEIR SETTLEMENTS ON THE RIVERS, THE ORIGINAL HIGHWAYS. THE WATER IN THE RIVERS, SPRINGS AND MARSHES WERE THEN, AND THEY ARE NOW, THE LIFE GIVING RESOURCE WE CAN NOT LIVE WITHOUT. IN PARTS OF OUR WORLD THE POPULATION IS [redacted]NCREASING BY 1 MILLION PEOPLE EVERY NINE MONTHS (USNEWS & WORLD REPORT 11/86
[redacted] HAVE ALL SEEN CITIES, OR AT LEAST PICTORIAL ACCOUNTS OF GREAT CITIES BURNED TO THE GROUND OR DESTROYED BY EARTHQUAKES. THEY WILL BUILD AGAIN - THEY RAISE UP FROM THE ASHES, AS THE PHOENIX - BUT TAKE AWAY

THE WATER AND THE CITY WILL WITHER AND DIE, NEVER TO REVIVE. WE WILL PERISH WITHOUT WATER. THE SETTLERS KNEW THAT.

THE PIONEERS OF THE KLAMATH BASIN HAD DREAMS. THEY ENVISIONED WHAT COULD BE IF THEY COULD MANAGE THE WATER. IF THEY COULD CONTROL THIS "GIVER OF LIFE". WE'VE ALL SEEN THE TOTAL DEVASTATION OF FLOODS, AND THE TOTAL DESPERATION OF DROUGHTS. THE ANSWER IS MANAGEMENT. AS I SAID, THE COMPACT HAS A COMPLEX HISTORY INVOLVING LOTS OF PLAYERS.

ABOUT 1904, PURSUANT TO THE RECLAMATION ACT OF 1902, THE BUREAU OF RECLAMATION, AN INTEGRAL PART OF THE DEPARTMENT OF THE INTERIOR, FILED FOR ALL THE WATER RIGHTS IN THE KLAMATH BASIN. BY DEFINITION, "THE UPPER KLAMATH RIVER BASIN" MEANS THE DRAINAGE AREA OF THE KLAMATH RIVER AND ALL ITS TRIBUTARIES UPSTREAM FROM THE BOUNDARY BETWEEN THE STATES OF CALIFORNIA AND OREGON AND THE CLOSED BASINS OF BUTTE VALLEY, RED ROCK VALLEY, LOST RIVER VALLEY, SWAN LAKE VALLEY AND CRATER LAKE.

WHY DID THEY FILE FOR THESE WATER RIGHTS? TO MAKE SURE THE LOCAL AREA BENEFITED FROM THE RESOURCE BEFORE THE WATER FLOWED DOWNSTREAM FROM THIS BASIN! THIS WAS ONE OF THE FIRST RECLAMATION PROJECTS IN THE UNITED STATES. CANALS WERE DUG, DAMS WERE CONSTRUCTED TO IMPOUND WATER AND THE BASIN TRULY CAME TO LIFE AS WE KNOW IT TODAY.

THE APPROPRIATION OF WATER BY THE BUREAU HOWEVER, LATER BROUGHT IT INTO POTENTIAL CONFLICT WITH THE CALIFORNIA-OREGON POWER COMPANY - COPCO- WHICH WAS THE FORERUNNER OF PACIFIC POWER AND LIGHT. COPCO WANTED A HYDRO PLANT ON THE LINK RIVER AND HAD FILED APPLICATIONS FOR ADDITIONAL HYDRO PLANTS ON THE KLAMATH. WHAT WE NOW REFER TO AS THE J.C. BOYLE WAS ORIGINALLY CALLED THE BIG BEND PROJECT. THEY PLANNED FOR AND DID ULTIMATELY PLACE A SERIES OF DAMS ON THE KLAMATH RIVER.

BUT THE BUREAU HAD THE RIGHT TO DIVERT WATER FOR IRRIGATION. BOTH OF THESE PROJECTS HAD FLOW REQUIREMENTS.

IN 1917, COPCO AND THE BUREAU ENTERED INTO A 50-YEAR CONTRACT PROVIDING FOR THE LINK RIVER DAM TO CREATE WATER STORAGE IN UPPER KLAMATH LAKE,

COPCO WOULD PAY FOR THE FACILITIES AND OPERATE THEM IN ORDER TO PROVIDE WATER FOR ITS DOWNSTREAM DEVELOPMENTS. THE BUREAU WOULD HAVE FIRST CALL ON ALL WATER TO OPERATE THE KLAMATH PROJECT, RETURNING THE WATER TO THE RIVER ABOVE KENO. FOR THIS, COPCO WOULD PROVIDE ELECTRICITY TO THE PARTICIPANTS IN THE KLAMATH PROJECT AT GREATLY REDUCED RATES. OUR NEIGHBORS TO THE SOUTH, OUTSIDE THE KLAMATH PROJECT, PAY ABOUT FIVE TIMES WHAT OUR FARMERS PAY BECAUSE OF THIS AGREEMENT.

THE BUREAU-COPCO CONTRACT BECAME THE FOCUS OF DISCUSSIONS THAT ULTIMATELY LED TO THE ADOPTION OF THE KLAMATH RIVER BASIN COMPACT. IN THE 1940's AND 50's COPCO PROCEEDED WITH THE DEVELOPMENT OF ITS HYDRO PLANTS ON THE RIVER. THE FEDERAL POWER COMMISSION, AS IT WAS CALLED IN THOSE DAYS, LICENSED THE BIG BEND PROJECT (J.C.BOYLE) WITH THE CONDITION THAT COPCO [redacted]IN AN EXTENSION OF ITS CONTRACT WITH THE BUREAU, WHICH WAS TO EXPIRE IN 1967. THIS EXTENSION WAS NECESSARY TO ASSURE THAT THE LINK RIVER DAM CONTINUED TO OPERATE TO MAKE WATER AVAILABLE TO DOWNSTREAM POWER DEVELOPMENTS.

BY NOW, BOTH OREGON AND CALIFORNIA IRRIGATION INTERESTS WERE CONCERNED ABOUT WHO HAD WHAT RIGHTS AND HOW THE WATER WOULD BE DISTRIBUTED. BY MID 1954 KLAMATH RIVER COMMISSIONS IN BOTH OREGON AND CALIFORNIA WERE FORMED TO STUDY THE ISSUES. REPRESENTATIVES FOR OREGON WERE NELSON REED, CHAIRMAN FROM KLAMATH FALLS; JAMES KERNS, JR, VICE-CHAIRMAN FROM KLAMAH FALLS: RALPH E. KOOZER, ASHLAND: HARRY PEARSON, CHILOQUIN: AND GEORGE E. STEVENSON, OLENE. REPRESENTATIVES FROM CALIFORNIA WERE BERT PHILLIPS, TRINITY COUNTY: JAMES STEARNS, MODOC COUNTY: NELSON BOWLES, HUMBOLDT CO: HARVEY BANKS, DIRECTOR OF CALIFORNIA WATER RESOURCES AND ELLIS LOUIE, [redacted]KIYOU COUNTY. MR. FRANK BANKS WAS THE FEDERAL REPRESENTATIVE OF THE UNITED STATES.

MANY STUDIES WERE MADE OF HISTORICAL FLOWS OF THE RIVER AND THE QUANTITY OF WATER NEEDED TO SUPPORT THE PLANNED DEVELOPMENTS. MANY MEETINGS WERE

HELD BY THE COMMISSIONS AND COMMUNITY ORGANIZATIONS. THROUGH THESE YEARS OF DISCUSSIONS, HOT AND COLD, THE DETERMINED PEOPLE PERSERVERED. THE GOVERNMENT, THROUGH THE FEDERAL REPRESENTATIVE AND REPRESENTATIVES OF BOTH OREGON AND CALIFORNIA THOUGHTFULLY AND WITH GREAT CONCERN FOR THE MANY USES FOR THE WATER, HAMMERED OUT AN AGREEMENT.

THE DRAFT UNDERWENT CONTINUED REVISIONS THROUGHOUT THE NEGOTIATION PROCESS. BETWEEN MARCH 1955 AND THE FINAL PASSAGE IN APRIL 1957 THERE WERE AT LEAST TEN DIFFERENT DRAFTS. AS NEW INFORMATION WAS MADE AVAILABLE, CHANGES WERE AGREED UPON AND MADE. THE END PRODUCT WAS A THOROUGH, COMPREHENSIVE, AND MUTUALLY AGREED UPON POLICY GUIDE..THE KLAMATH RIVER BASIN COMPACT. IT HAS THE STATUS OF A STATUTE OF THE UNITED STATES AS WELL AS A STATUTE OF BOTH OREGON AND CALIFORNIA.

THE LANGUAGE OF THE DOCUMENT IS VERY SPECIFIC. IT SETS FORTH A PROGRAM GOVERNING THE DEVELOPMENT AND USE FOR THE KLAMATH WATER. THE PURPOSES ARE CLEARLY TO PROMOTE AND FACILITATE THE DEVELOPMENT OF FIVE PRIMARY USES: DOMESTIC; IRRIGATION; RECREATION, INCLUDING FISH AND WILDLIFE; INDUSTRIAL; AND HYDROELECTRIC. IT WAS FURTHER SPECIFIC THAT IN YEARS OF WATER SHORTAGE DOMESTIC AND IRRIGATION USE WOULD HAVE PRIORITY OVER THE OTHER USES. THE COMPACT FURTHER GUARANTEES ADEQUATE WATER TO IRRIGATE AN ADDITIONAL 300,000 ACRES OF LAND. 200,000 IN OREGON AND 100,000 IN CALIFORNIA. IT ALSO SAYS THAT EACH STATE MUST PROVIDE FOR THE MOST EFFICIENT USE OF AVAILABLE WATER FOR OTHER BENEFICIAL USES.

BRIEFLY, LET ME SHOW YOU HOW THE WATER IS CONTROLLED BY REFERRING TO THIS MAP. FROM CLEAR LAKE IN CALIFORNIA, THE LOST RIVER HAS ITS BEGINNING. IT FLOWS NORTH THROUGH LANGELL VALLEY GATHERING WATER FROM MANY CREEKS AND RIVERS. IT CIRCLES THROUGH OLENE GAP AND HEADS BACK SOUTH THROUGH MERRILL TO THE TULE LAKE SUMP. THE KLAMATH RIVER STARTS WITH HEAD WATERS FROM THE WILLIAMSON, WOOD & OTHERS THROUGH THE UPPER KLAMATH LAKE, LINK RIVER AND LAKE EUWANA. SOUTH OF KLAMATH FALLS, IS THE VERY FUNCTIONAL AND UNIQUE DIVERSION CANAL. FOLLOWING THE NATURAL LAWS OF

GRAVITY, THIS CANAL CAN CAUSE THE WATER TO BE DIRECTED EITHER TO TULE L[redacted]R KLAMATH RIVER. IT IS USED FOR FLOOD CONTROL, IRRIGATION OR PLEASURE, AS MANY PEOPLE AND LOTS OF BIRDS CATCH FISH THERE.

THAT'S REAL MANAGEMENT!

IT HAS BEEN SUGGESTED THAT THE COMPACT IS OUTDATED. IT ISN'T. IT IS THE ONLY REASON THIS BASIN STILL HAS ADEQUATE WATER. I SUGGEST THAT ALL OF US MUST HAVE A HEALTHY RESPECT FOR WATER RESOURCE MANAGEMENT. IF THOSE WATER RIGHTS HAD NOT BEEN FILED LONG AGO FOR OUR BENEFIT, YOU MAY BE SURE THAT AREAS NEEDING WATER WOULD HAVE AND WE WOULD HAVE BEEN LEFT HIGH AND DRY!

FOR MY EDUCATION ON THE COMPACT, I WOULD LIKE TO GIVE CREDIT TO MY DEAR FRIEND, THE LATE SAM JOHNSON, OREGON REPRESENTATIVE, WHO WAS THE FEDERAL REPRESENTATIVE AND COMPACT CHAIRMAN FROM 1976 to 1983; GEORGE P[redacted]TOR, LONG TIME CONSULTANT TO THE COMPACT COMMISSION AND ONE, IF NOT T[redacted] MOST KNOWLEDGABLE WATER LAWYERS IN THE COUNTRY: JIM KERNS, A MEMBER OF THE ORIGINAL COMPACT COMMISSION: CARROL HOWE FOR HIS HISTORICAL RECORDS; KIRK RODGERS AND BOB DAVIS OF THE BUREAU OF RECLAMATION: RICK LIND AND THE MANY FILES IN THE RESEARCH LIBRARY AT THE KLAMATH COUNTY MUSEUM.

ANY OF YOU WHO HAVE THE INTEREST AND TIME WOULD GREATLY ENJOY GOING THROUGH THE MUSEUM'WATER FILES. THEY HAVE HAND WRITTEN LETTERS, SPEECHES AND NOTES OF NELSON REED AND GEORGE STEVENSON, THE ORIGINAL MEMBERS OF THE COMPACT AND SOME FANTASTIC PICTURES OF "HOW IT REALLY WAS".

Nell Rhoten

Re-affirmation

that the major purposes of the

Klamath River Compact

with respect to the water resources of the Klamath Basin are:

A. To facilitate and promote the orderly integrated and comprehensive development, use, conservation and control thereof for various purposes, including, among others: the use of water for domestic purposes; the development of lands by irrigation and other means; the protection and enhancement of fish, wildlife and recreational resources; the use of water for industrial purpos[es] and hydroelectric power production; and the use and control of water for navigation and flood prevention.

B. To further intergovernmental cooperation and comity with respect to these resources and programs for their use and development and to remove causes of present and future controversies by providing (1) for equitable distribution and use of water among the two states and the Federal Government, (2) for preferential rights to the use of water after the effective date of this compact for the anticipated ultimate requirements for domestic and irrigation purposes in the Upper Klamath River Basin in Oregon and California and (3) for prescribed relationships between beneficial uses of water as a practicable means of accomplishing such distribution and use.

Ellis J. Lowe (signature)
Original Member

James Kerns (signature)
Original Member

Wayne Hentley (signature)
Current Member

William H. Young (signature)
Current Member

(signature)
Current Chairman
Federal Representative

George H. Proctor (signature)
Current Consultant

May 14, 1990

ROB WATERFOWL & EAGLES TO PAY PAUL

Mr. Chairman, thank you for the opportunity to express the views of our association to your Klamath River Fisheries Restoration Task Force My name is Frank Goodson. I am President of KLAMATH BASIN WATERFOWL ASSOCIATION, a newly formed group headquartered in Tulelake, California.

ABOUT KLAMATH BASIN WATERFOWL ASSOCIATION (KBWA)

Since KLAMATH BASIN WATERFOWL ASSOCIATION (KBWA) is only 7 months old, let me tell you a little of what we are about. At present we have a membership 260 strong. Our membership, though small, is rapidly growing and is also backed by 2,400 petition signatures of hunters seeking continued and better waterfowl habitat and better waterfowl hunting in Upper Klamath Basin (the portion of the Basin upstream from Iron Gate Dam).

KBWA was established for the express purposes of helping to maintain and to enhance waterfowl habitat, waterfowl populations and waterfowl hunting in Upper Klamath Basin. We're essentially a local group. At least our interests are local, confined to the Upper Basin, both sides of the states boundary Our membership, though, is more than local. We have members from all parts of California and Oregon and 4 other states.

KBWA's CONCERNS

The reason that I am making this statement to you, today, is to let you know that we of KLAMATH BASIN WATERFOWL ASSOCIATION are very concerned that inclusion of Upper Klamath Basin, as described in your October 1992 amendment could lead to the loss and decline of waterfowl habitat, waterfowl populations and Bald Eagle populations of Upper Klamath Basin.

More specificly, if the limited water supplies historically used in the Upper Basin (by farms, ranches, duck clubs and federal and state waterfowl refuges) are reduced by any amount for any reason (including for fisheries rehabilitation efforts) then the habitat and thus the populations of waterfowl and Bald Eagles in the Upper Basin will be commensurately reduced

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Presented by Frank Goodson, President, Klamath Basin Waterfowl Association at the Klamath River Basin Fisheries Task Force Meeting in KLAMATH FALLS, OREGON, MARCH 30, 1993. For additional information contact Klamath Basin Waterfowl Association, phone 503 884-9849 or write P.O. Box 1029, Tulelake, California 96134.

If you take a portion of the Upper Basin's limited water supply then you will literally be robbing waterfowl and eagles to pay Paul (fish).

WATERFOWL & EAGLE VALUES OF UPPER KLAMATH BASIN LANDS

In reviewing the LONG RANGE PLAN FOR THE KLAMATH RIVER BASIN CONSERVATION AREA FISHERY RESTORATION PROGRAM. January 1991 and the DRAFT UPPER KLAMATH RIVER BASIN AMENDMENT dated October 1992 I was taken back by the complete lack of discussion of the value and importance of Upper Basin agriculture and refuge lands to the waterfowl and Bald Eagles of the Pacific Flyway. As a wildlife biologist of 28 years standing, let me present a summary.

Upper Klamath Basin, including the private pasture lands, the private grain and potato lands and the agriculture and marsh lands of state and federal wildlife refuges combined are the most important single waterfowl habitat area in the Pacific Flyway. The Upper Klamath Basin is the hour-glass constriction of the Pacific Flyway. Loss of habitat in this area will directly affect birds using the whole flyway, and would impact international treaties and endangered species.

Some people perceive that only "marshland" is "good" waterfowl habitat This is not true, of course. Geese and shorebirds especially use the pasture grain and potato lands of the farms and ranches. Ducks heavily use the grain lands. Even the refuges grow these same crops, though they are taking some crops out of production now for creation of new wetlands relying on the continuation these crops by agriculture interests nearby.

Bald Eagles, incidentally rely on the heavy concentrations of waterfowl in the area during December through February each year as an easy source of protein. Up to 900 eagles inhabit the area each winter for this reason alone. This is the biggest concentration of Eagles in North America, outside of Alaska.

WATER ALLOCATION PROBLEMS

This past year the Bureau of Reclamation, in its effort to allocate the limited water supply in Upper Klamath Basin, developed "A", "B", and "C" categories of water users, based on "water contract priorities or existence". At risk of over simplifying the situation..... this is what the results were. The "A" users received almost all the water they needed for this years crops. The "B" users received less per acre than the "A" users, i.e., definitely not quite all that they needed. The private land "C" users received no water at all. The refuge "C" users, received some water.

Presumably, if the Klamath River Fisheries Task Force is successful in taking existing water from the Upper Basin users, as you've suggested in your report and correspondence, then it will be the "C" and "B" users who would take the lumps again.

Well who are the "C" users and what do they grow. They are local Klamath Basin farmers with approximately 10,000 acres under cultivation, growing pasture, grain, some potatoes and some wetlands for duck clubs They are also the Tulelake and Lower Klamath Lake National Wildlife Refuges, consisting of approximately 90,000 acres. The "B" users (30,000 acres?) are likewise growing mostly grain and pasture. Essentially all the "B and C" lands, as they are presently managed, are critical waterfowl habitat to the Pacific Flyway.

ROBBING PETER TO PAY PAUL

In short, these are all important waterfowl lands. No one can take water historically used on these Upper Basin lands without having an extraordinarily negative impact on waterfowl and eagle populations. The impact would be sufficiently negative, I believe, to trigger creation of a future Congressional Resolution requiring a 20 year "Klamath River Basin Waterfowl Task Force" to rehabilitate the waterfowl. Robbing Peter to Pay Paul, in this case, would be expensive, unreasonable and a waste of tax payer's money.

JOIN US IN "ANOTHER" WAY

There is another way. A way to leave the water presently used in the Upper Basin to those who are now using it.....while obtaining new water for the fisheries restoration.

That other way, of course, is to develop additional water storage reservoirs in the Upper Basin to provide "new" water for all purposes, including fisheries.

KBWA pledges itself to join the Bureau of Reclamation and others in seeking Congressional authorization for such a water storage project. We ask that your Fisheries Task Force join us in this authorization endeavor, too.

We ask also, that you forgo efforts to seek the water presently and historically used by the "A", "B" and "C" users of Upper Klamath Basin water. The lands that have been using the water should continue to use it unabated.

Incidentally, if you attended the Klamath River Fisheries Task Force meeting in Yreka on November 5, 1992 you would probably conclude that my comments now are not much changed from those I gave before your group on that day. That's true, and its because your more recent Draft EIS didn't address any of the concerns I brought up at that time.

REPRESENTATION FOR UPPER KLAMATH BASIN

If I could, I'd like to speak a moment about fair representation of Upper Basin people, in the event you do incorporate our area in your study as suggested. According to your Draft EIS, the Upper Klamath Basin contains 5,302,000 acres and the Lower Klamath Basin and Trinity River Combined contain 4,292,000 acres. Thus of the total 10,010,000 acres in the KlamathRiver Basin, the Upper basin contains 53% of the total. I request therefore, that if there is an inclusion of the Upper Basin into your study that at least 53% of the representatives on your Task Force be from the Upper Basin..... and that some of those representatives represent waterfowl hunting interests.

Thank you again for the opportunity to express our comments. Your consideration is appreciated.

AFS American Fisheries Society
HUMBOLDT CHAPTER
P.O. Box 210, Arcata, CA 95521

March 1, 1993

Honorable Gerry E. Studds
Chairman, Merchant Marine and Fisheries Committee
U.S. House of Representatives
Room 1334, Longworth House Office Building
Washington D.C. 20515-6230

Dear Mr. Studds,

It is an honor and a privilege to address your committee on the status of Pacific salmon stocks in northwestern California and how taking an ecosystem approach to river management might help to restore them. My comments are offered as those of the Humboldt Chapter of the American Fisheries Society for which I served as principal author of Factors Threatening Northern California Stocks With Extinction (Higgins et al. 1992). This work characterized the risk of stock extinctions of chinook salmon, coho salmon, steelhead and coastal cutthroat trout in rivers from the Russian River north to the Oregon border, including the Klamath and Trinity Rivers and their tributaries. I also rely on my experience as a consulting fisheries biologist in helping to write the Long Range Plan for the Klamath River Basin Fisheries Conservation Area (USFWS 1991). This plan takes a watershed approach to preserving biodiversity and guides your $40 million, twenty year effort to restore anadromous fisheries to that river (Higgins and Kier 1992). I will offer comments only on river systems for which I have direct knowledge. The text will be in response questions that I received in preparation for my testimony on March 9, 1993 before your committee.

1) *What is your assessment of the condition of the river systems in the Pacific Northwest under the present management regime?*

In my work for the U.S. Fish and Wildlife Service (1991) on the Klamath River, I characterized it as "severely ecologically stressed." The lower river has been filled in by 20-30 feet of sediment, flows have been reduced by dams which decreases the river's ability to flush itself, and river temperatures in late summer exceed 75 degree F. The source of the river in southern Oregon is Upper Klamath Lake which has deteriorated to the point that it has experienced massive fish kills and some of its endemic fish fauna are going extinct. The South Fork of the Trinity River is the largest Wild and Scenic River basin in California without a dam, yet it is in a similar condition to the Klamath. Chronic problems with high sediment delivery keep riparian zones from recovering, inhibit production of invertebrates which reduces available food for juvenile salmonids, and result in unstable spawning gravels. Maximum summer water temperatures in the lower South Fork Trinity in 1991 reached 81 degrees F, which is lethal for salmonids.

All other major river systems in our area, with the exception of the Smith River, have similar problems to those described above. The Eel River is the fourth largest salmon and steelhead producer in California, but there is some prospect that these species may be lost from the river. Erosion problems in the Eel watershed are immense, with an estimated 60 feet of material deposited over the old river bed from past flood events. According to U.S. Fish and Wildlife Service reports, the main stem of the Eel River as recently as 1959 could support 140,000 pairs of spawning salmon but today the main stem of the river is no longer suitable for spawning. The river relied primarily on its healthy tributaries to support anadromous fish after past floods, but those have recently been severely damaged by logging.

All smaller coastal river basins in the region have had similar problems with sedimentation due to extremely unstable geologic conditions in our region coupled with disturbances related to industrial timber practices. The high sediment load of almost all northwestern California Rivers has caused estuaries to fill. The estuary of the Eel River for example has shrunk by over 50 percent since 1950 (Higgins 1991). These important habitats serve as nursery areas for salmonid juveniles, such as chinook salmon, and marine species such as Dungeness crab.

The ecological changes in the rivers of our region result in conditions under which introduced exotic, warm water fish species may thrive. Green sunfish were found to be successfully reproducing in the South Fork of the Trinity River during the recent, prolonged drought. There is some evidence that these fish are predating upon juvenile steelhead. Sacramento squawfish were introduced to the Eel River a decade ago and have since spread throughout the entire river basin. These fish are predacious and have experienced almost an exponential cycle of growth. Plunging salmon and steelhead populations in areas of the basin first colonized by squawfish suggest that they have had a devastating impact.

In areas further south or in interior river basins, impacts may come largely from agricultural activities. The Shasta River, which has always been a substantial contributor to Klamath chinook salmon production, is now almost unsuitable for these fish. Lack of riparian cover and depletion of flows for irrigation have caused the river to rise to 90 degrees F in summer. Lack of riparian fencing also allows livestock direct access to the river resulting in excessive nutrient loading. Dissolved oxygen in summer has been measured at 2.4 ppm, which is lethal to salmonids. The Russian River to the south has a complex set of problems related to flow depletion for farming and vineyards, sub-urban development, and excessive gravel extraction.

2) What are the essential attributes of healthy watersheds and fish habitat? What is role that riparian areas play in promoting "ecosystem health" as well as providing high quality fish habitat?

Since I will be addressing your committee with such scholars as Dr. James Sedell, I will only offer my assessment of what healthy watersheds remain in my region. Those rivers that flow from Wilderness or Roadless Areas on U.S. Forest Service lands such as Smith River, Wooley Creek, Dillon Creek, Clear Creek, upper Blue Creek, lower Hayfork Creek, New River, and the North Fork of the Trinity River are the only systems that possess high quality fish habitat at this time. The attributes that all these watersheds share are: no or few roads or if they are roaded then roads are well designed, diverse vegetative cover including lots of older age conifers, sufficient large woody debris adjacent to streams to provide for natural recruitment, and the absence of large numbers of livestock or heavy mining activity.

I am sure that the role of healthy riparian zones in forested lands will also be covered by the testimony of Dr. Sedell, but I would like to make sure that such attributes are not overlooked on streams through alluvial valleys, such as the Shasta River. Undercut banks beneath root masses of riparian trees provide the best fish habitat in these valley streams which were once the most productive of fish habitats. Stream side trees provide shade to these rivers, moderating stream temperatures, and prevent bank erosion which preserves valuable agricultural land. Open access for cattle to stream side areas for over 100 years has destroyed riparian vegetation. This often leads to down-cutting of streams which can result in a drop in the local water table and a reduction in the productivity of the land.

3) *Are existing management regimes on state, federal, and private land adequate to prevent further degradation of watersheds and fish habitat? If not, are there statutory or administrative barriers that would hinder changes in management regimes for rivers? Are there other barriers (economic, social, or political) that might also create problems?*

Current management regimes have almost completely failed to prevent watershed and stream degradation and further damage is likely without fundamental change. Some barriers to sound management require administrative changes while others necessitate legislative action.

Public Forest Lands: While the U.S. Forest Service has shown increasing recognition of the problems leading to decline of fisheries resources, implementation of meaningful change to prevent future damage varies from one forest to another. Six Rivers National Forest has been under scrutiny by an active environmental community and has therefore implemented some very progressive policies with regard to timber harvest on erodible terrain. Adjacent forests, where local communities were primarily interested in timber extraction, have shown less sensitivity in the past to fisheries and wildlife issues.

All National Forests have been caught in the conflict of "getting the cut out" to generate revenue, knowing that the last

patches of merchantable timber are on increasingly steep and unstable ground. Past practices have lead to over-cutting which means that a period of light timber extraction and re-investment in the productivity of the land must begin. The USFS must move away from token fisheries projects such as channel manipulations and move toward a more sound ecological approach. The primary barrier to better management on USFS lands seem to be administrative but the fundamental changes needed may be difficult without major changes in staff. Specific legislative protection of the best Pacific salmon refugia is necessary at this time, however.

Private Forest Lands: Current logging practices on private land in California completely ignore concerns for cumulative effects. Recent disturbances on private timber lands have set the stage for substantial degradation to stream habitats which will be triggered by the next major storm event. While Six Rivers National Forest has withdrawn all its lands from timber harvest in Grouse Creek (South Fork of the Trinity), all timber harvest plans on private land continue to be approved. Some watersheds with unstable geologic conditions have experienced disturbance levels from 60-80 percent in a decade despite warnings from scientists of extreme risk of soil loss associated with such practices.

The California Department of Forestry has allowed clear cut timber harvesting in steep, inner gorge areas that pose greatest risk of sedimentation to stream channels. Large coniferous trees are often removed from riparian zones when steep slopes or deciduous trees provide shade to streams; only stream temperature was considered when current rules were formulated. Humboldt AFS has appraised the California Board of Forestry, both at hearings and in writing, about the potential loss of stocks of salmon in streams effected by industrial timber practices. Our requests that watersheds harboring stocks at risk be designated as Sensitive Watersheds under Forest Practices Rules have received no response. Other aquatic species in our region, such as tailed frogs (Asclepius truei) and Olympic salamanders (Rhyacotriton olympicus) are also at risk of extinction but CDF has no plan to protect them.

California Forest Practices Rules have failed several times over the course of a decade to be approved as Best Management Practices under the Clean Water Act. Currently, the EPA delegates authority over control of non-point source pollution to the California State Water Resources Control Board. Humboldt AFS additions of streams impacted by non-point source pollution to the list of impaired water bodies in 1988 showed that the system of delegation is not working. The SWRCB failed to include many of these water bodies in their data base without justification but the EPA then forced them to reconsider. Most of the streams were ultimately included. It seems that a stronger, direct enforcement role for the U.S. Environmental Protection Agency in oversight of timber harvest should be considered during the re-authorization of the Clean Water Act.

Private Agricultural Lands: Stream degradation due to agricultural practices and flow depletion have both administrative and statutory barriers. The California State Water Resources Control Board has the authority to prevent water users from wasting water but actions are only initiated when a complaint is filed. Any riparian land owner in California may begin to extract water without any permit from the SWRCB at any time. This antiquated water law needs revision if we are to maintain fisheries resources in the face of increasing development in the state. Ground water extraction is almost completely unregulated in the state, yet if aquifers are drawn down, streams may dry up and riparian zones may die. I am unaware of any statutes that prevent over-grazing that leads to stream degradation due to loss of riparian vegetation. Non-point source pollution from stock may be a violation of the Clean Water Act but no enforcement action has been initiated in our area.

There is a misperception at present in rural communities that private property rights reign supreme over public trust resources. These local interests groups see only short term economic gains or losses and are reluctant to entertain more sustainable land use practices. Thinking people, however, are recognizing that we must change. A major economic engine for over-cutting of our forests is an almost unlimited international market for wood products. In the past, when markets were primarily domestic, recessions led to decreased demand for wood products and a slow down in the rate of logging on public and private land. Free market economics can no longer be relied upon as a moderating influence on forest harvest.

4) *What management techniques are available to maintain and restore high quality watersheds that will sustain harvestable, naturally spawning fish populations?*

I support the watershed approach to fisheries and river restoration currently being advanced by Mr. Robert Doppelt of Pacific Rivers Council, who joins me on this panel. A similar approach is endorsed in the Klamath Plan (USFWS 1991). The most cost effective method of restoring streams impacted by sedimentation is to stabilize upland areas and allow streams to flush during subsequent high flows. While implementation of such a strategy should move forward on public lands immediately, there is a great need for similar activities on private lands as well. No public money should be spent on private lands, however, until there is fundamental reform of timber harvest practices.

Because the landscape is so fragmented at this point and rivers in such bad ecological health, I believe it is prudent to place the watersheds which serve as refugia for the last viable Pacific salmon populations in permanent reserves. No restoration will be possible in the future if the last gene resources that exist in lightly impacted or undisturbed watersheds are lost. We must also develop long term strategies based on desired future conditions of riparian areas so that stream health can be restored.

Widespread implementation of water conservation measures is needed throughout California. Leaky irrigation ditches, often in use since before the turn of the century, lead to a tremendous waste of water. If efficiency of water use were increased by implementation of water conservation measures, we could maintain agricultural productivity and regain public trust resources such as fish and water quality. Riparian restoration in agricultural lands is essential if we are to restore salmon and steelhead. Although many times fish are spawned and rear in steep areas above alluvial valleys, they must successfully migrate through these valley reaches if they are to complete their life cycle. Restoring riparian zones only requires cattle exclosures and tree planting. Federal programs should be made available to farmers and ranchers who willingly participate in such programs.

The marshes surrounding Upper Klamath Lake must be restored if we are to reverse the condition of the lake and prevent the extinction of its fishes. If water quality problems in the lake are not reversed, the entire Klamath River restoration program is jeopardized. Water conservation measures and riparian restoration on tributaries feeding the lake also must be implemented.

I am currently helping to put together a model program for the Klamath River basin, using the EPA Reach File, to make information on fisheries and water quality readily available to professionals as well as the interested public. When the Klamath EPA Reach file is complete, fisheries biologists from any agency will be able to access information in minutes before consultations on a land use project that now takes several hours or several days of research. Agencies or individuals will be able to access information on the history and problems in a watershed to better understand potential impacts of a project they are proposing. To succeed in restoring the ecological health of all our water bodies, we must begin to take a more systematic approach to managing and sharing information.

5) *Are there economic benefits to managing rivers on an ecosystem basis, compared to our current piecemeal approach?*

It is difficult to gauge the worth of preserving self-perpetuating salmon, steelhead and trout stocks. When these fish return to healthy watersheds, they reproduce at no cost to the public. Estimates by the Pacific Fisheries Management Council in 1983 showed that 1,225,000 chinook salmon alone should be produced by natural spawning in the Pacific Northwest. If properly managed, this should lead to a harvestable surplus of twice that number of chinook salmon annually in perpetuity. Because this economic pulse is sustainable, the value of all Pacific salmon species when one considers direct value of fisheries and tourism related to fishing is immense. Our large river systems suffered tremendous impacts in the past from hydraulic mining yet they were producing tremendous bounties of fish after recovery was allowed.

There is also economic benefits to making a transition to sustainable land and water management. Soil resources are the basis of all silvicultural productivity. By acting to prevent tremendous soil losses, we will maintain the future productivity of our forests. If we move to help farmers and ranchers invest in increased efficiency of water use, they can meet their water needs while allowing more water for fish and other public benefits. With the specter of continuing drought cycles, it is prudent that we make this investment regardless. Healthy riparian zones can reduce the risk loss of valuable agricultural land during future floods as well as playing an integral part in fisheries restoration.

We are now faced with the very real prospect of widespread extinction of Pacific salmon stocks. As a nation, we are all concerned about our current budget deficit and what portion of that debt we will leave to our children. If we fail to act decisively to save Pacific salmon, what will be the economic and cultural deficit that we leave to future generations? Continuing our haphazard approach will most certainly lead to the demise of these fish. The public recognizes the value of Pacific salmon and healthy river systems and will support sound solutions. The time for leadership has arrived.

Sincerely,

Patrick Higgins, Chairman
Environmental Concerns Committee

References

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Higgins, P.T., D. Fuller and S. Dobush. 1992. Factors Threatening Stocks With Extinction in Northwestern California. Humboldt Chapter of the Amer. Fisheries Soc. Arcata, Calif.

U.S. Fish and Wildlife Service. 1991. Long Range Plan for the Klamath River Basin Fisheries Conservation Area. USFWS Klamath Field Office, Yreka, Calif.

Memo to Ted Case via fax

From: Don Russell, President of the Klamath Basin Water Users Protective Association.

March 10, 1993

Thank you for the opportunity to review the letter from Patrick Higgins, Chairman of the Environmental Concerns Committee, Humboldt Chapter, American Fisheries Society.

As you know our Association agrees with a comprehensive ecosystem approach to the varied environmental and industry problems facing the Upper and Lower Klamath River Basins. Our Association has instituted a grass roots approach which is receiving widespread support by the publication of the "Initial Ecosystem Restoration Plan For The Upper Klamath River Basin." You have received a copy of the Plan, and I'm enclosing a copy of the Executive Summary for your immediate reference. I am also sending a complementary copy of the Plan to Mr. Higgins. It is explicit in the Plan that the Upper Klamath River Basin ecosystem restoration should be coordinated with efforts regarding the Lower Klamath River.

Any ecosystem approach should demonstrate extensive local involvement, such as is that being initiated in the Upper Klamath River Basin.

The Upper Klamath River Basin is unique to most river systems, in that there is tremendous interaction of the ecosystem and use of its water prior to the water leaving the Upper Basin at a single point, the Klamath River at Keno. Included in this interaction are several National and State Wildlife Refuges (including a significant water source for the Pacific flyway, white pelicans and peregrine falcon), the largest winter concentration and feeding grounds in the contiguous United States for the bald eagle, tremendous agricultural production and recreational use including several Wilderness Areas. Further complicating the Upper Basin is the delivery, use and re-use of the water within the Klamath Project, Bureau of Reclamation; this includes several Wildlife Refuges interspersed with agricultural deliveries. The bald eagles feed on the wildfowl which in turn feed in part on the winter irrigated farm land.

The Upper Klamath River Basin has numerous lakes, rivers, marshlands, springs, streams and storage areas; all water leaves the Upper

Basin at Keno; this unique system has been likened to "a river in reverse," where the delta like development occurs in the Upper Basin.

The dominant lake in the Upper Klamath River Basin is the Upper Klamath Lake, which, in relation to lake ecology, is in its twilight years. Over the centuries, the Upper Klamath Lake has filled with natural nutrients and is now quite shallow. Not apparent in Mr. Higgins letter is the fact that this overall progression is probably not reversible by man's efforts, although we do have many suggestions and projects developed to help the situation. In addition, the management opportunities in the Upper Klamath River Basin, may be able to overcome many difficulties faced by all, including the water and flow to downstream. One of the things learned in past years is the high temperature the water naturally obtains in the shallow waters of the Upper Klamath Lake and how unthoughtful releases can hurt the salmonids downstream.

We have been told that our Association's Ecosystem Restoration Plan and the processes expected to follow can be used as a good overall approach to environmental problems. We have all learned the limitations of putting "blinders" on and dealing with one problem while ignoring other problems possibly caused by our short-term solutions.

One of our worries is that huge amounts of marsh restoration may improve habitat for artificially introduced fish that are predators of the sucker fish designated endangered under the ESA. Our pilot projects of marsh restoration should be implemented and studied, so that our decisions in the future will be a help rather than hindrance to the ecosystem.

It is important to note that the Ecosystem approach of the Upper Klamath River Basin should be encouraged and allow us to coordinate with efforts that may be progressing downstream.

Thank you for this opportunity to give input.

Comments on Pat Higgins' March 1, 1993 letter to Chairman Stubbs

Many of his statements concerning the potential adverse effects of land and water development on fishery resources are very general in nature (e.g., "severe ecologically stressed"). Modern-day natural resource science has advanced beyond the broad generalizations of this nature and has focused on developing the factual scientific basis to fully understand cause-and-effect phenomena. The broad generalizations are usually used by environmental advocacy organizations rather than modern-day scientists. One example he uses is "those (tributaries) have recently been severely damaged by logging". This in an inaccurate and unscientific characterization of the issue. Although everyone now recognizes that historical logging practices caused severe habitat degradation, stream habitat degradation of that nature resulting from modern-day logging practices is extremely rare or non-existent in that region. Mr. Higgins' apparently does not recognize that, in terms of effects on aquatic ecosystems, there is a broad middle ground between historical logging practices and modern-day logging practices. Much of this letter appears at though its was written many decades ago; it does not recognize major advancements in improvements to land and water management practices which have significantly reduce or eliminate adverse environmental impacts.

Most of his statements are opinions and should be recognized as just that. His letter is non-factual and non-scientific in nature. His letter appears to be simply a statement from an environmental activist perspective and not from an environmental scientist's perspective. There is nothing wrong with that, as long as it is place in proper context of the issues.

Much of the information presented in his "Factors Threatening Northern California Stocks with Extinction" is very general in nature; the paper lacks many specific scientific facts.

Many of his statements have popular appeal, are generally admirable, yet lack substance. They are along the line of popular statements such as "Let's all work together to clean up the environment".

Higgins is known to be a strong advocate promoting endangered species listings for individual salmon runs without adequate scientific knowledge of the true genetic integrity of the runs (stocks) or run sizes. He is known to be a "splitter" rather than a "lumper" when it comes to endangered species. For example, he is a believer that individual small streams within a larger stream or river possess unique, genetically distinct stocks of fish and should be considered separately for endangered species listings. He is not a geneticist. His "philosophies" are not supported by many prestigious fish geneticists (e.g., Dr. Graham Gall).

He states that the South Fork of the Trinity River is in a similar condition to the Klamath River. This statement exemplifies his lack of scientific knowledge and expertise on both river systems. The specific factors affecting fish populations (e.g., specific land and water management practices) are radically different in each watershed, as are the complex ecological processes within each basin (i.e., "apples and oranges" comparison). For example, the flora and fauna, climate, hydrology, geomorphology, and stream flow regime are very dissimilar.

He should be asked to provide quantitative estimates to support his statement of "massive fish kills" in Upper Klamath Lake. This appears to be another example of a broad, non-factual generalization.

He has some strong, unfounded statements against the professionalism of the California Department of Forestry. In all fairness to that agency, their representatives should have an opportunity to respond to his statements.

His statement "The marshes surrounding Upper Klamath Lake must be restored if we are to reverse the condition of the lake and prevent the extinction of its fishes" lacks scientific basis and demonstrates lack of understanding of the complex ecological processes in the basin. At this point in time, all knowledgeable scientists on this topic recognize that this is a hypothesis (i.e., unproven), not a scientific fact.

ATTACHMENT 6

Karuk Tribe of California

ADMINISTRATIVE OFFICE:
POST OFFICE BOX 1016
HAPPY CAMP, CA 96039
(916) 493-5305

DEPARTMENT OF NATURAL RESOURCES
POST OFFICE BOX 282
ORLEANS, CA 95556
(916) 627-3446 FAX (916) 627-3448

POSITION STATEMENT OF THE KARUK TRIBE

MARCH 3, 1993

The Karuk Tribe is a sovereign aboriginal people, that have lived on their own land since long before the European influx of white men came to this continent. We are a Federally Recognized Indian Tribe with over 3,000 tribal members. The Tribal Executive Council is the formally constituted governing body of the Karuk Tribe, entrusted with a responsibility to protect, preserve and promote the ceremonial, subsistence and economic fishing rights of the Karuk people.

The Tribe believes that the federal government not only has a trust responsibility to deal with the basin Tribes on a government to government basis, but also a trust duty to protect the natural resources upon which the Tribes of the basin are wholly dependent. This federal trust obligation imposes strict fiduciary standards on the conduct of executive agencies, not limited to the Bureau of Indian Affairs, in their dealings with Indian Tribes.

In years past the Karuk Tribe has developed, and continues to maintain, an ongoing presence and involvement in water management issues affecting the Klamath river and its tributaries. In 1992, the Karuk Tribe assumed a more pro-active role in water management issues on the Klamath river. This pro-active role by the Tribe was stimulated by six consecutive years of drought coupled with three successive years of critically low spawner escapements to the Klamath river. The combination of these two factors alone threatens the future viability of all Klamath River Basin anadromous fish populations.

The Karuk Tribe is a member of the Klamath River Basin Fisheries Task Force (Task Force), which was created in 1986 (P.L. 99-552 the Klamath Act) and charged with the task of development and implementation of the

Klamath River Restoration Program, in coordination with the Secretary of the Interior. The Task Force has explicitly recognized the need for an instream flow study of the Klamath River in their Long Range Restoration Plan.

The Karuk Tribe, acting through its appointed representative to the Klamath Task Force, initiated the letter from the Task Force to the Secretary of the Interior, requesting that the minimum flows required by the FERC license agreement with PP&L be upheld.

The Tribe was actively involved and played a lead role in negotiations with the Bureau of Reclamation and the agricultural community to secure an increase in water flows below Iron Gate Dam for adult fish migration. Further, the Tribe was instrumental in the effort to bring the Klamath Compact Commission out of the shadows and into the forefront of the current water crisis facing the Klamath River Basin.

Yet, following on the heels of our active involvement in Klamath River water management issues, the U.S. Fish and Wildlife Service and the U.S. Bureau of Reclamation began to formulate an instream flow study without our involvement. The Karuk Tribe was never invited to participate in the earlier instream flow study meetings and we were told by Ron Iverson in November that the study proposal was completed and being forwarded to William Shake's office for his signature.

We are dismayed that the U.S. Fish and Wildlife Service and the U.S. Bureau of Reclamation failed to recognize our rightful role in the decision making process. Over half of the area covered by the proposed Klamath River instream flow study is located within our Aboriginal Territory (Attachment 1).

Also, we have not received a written response to our letter of January 28, 1993 to Mr. Wayne White (USFWS), and are suspicious of your instream flow study motives given your actions to date. However, we are encouraged by your invitation to participate in this preliminary scoping meeting, and we are willing to participate in good faith provided that all of our concerns are clearly, openly and sincerely addressed by the relevant agencies in the future.

ATTACHMENT 7

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Klamath River Fishery Resource Office
P.O. Box 1006
Yreka, CA 96097-1006
(916) 842-5763
FAX (916) 842-4517

COPY FOR YOUR INFORMATION

March 26, 1993

Memorandum

TO: Klamath River Basin Fisheries Task Force members
Technical Work Group members

FROM: Project Leader, Klamath River FRO
Yreka, California

SUBJECT: Survey of Federally funded projects of the Klamath River Fishery Restoration Program, Fiscal Years 1989-93.

Attached, please find a dBase printout of all projects funded with Federal program monies for fiscal years 1989 through 1993. We were asked to develop an objective survey of all projects at the February 1993 Task Force meeting. All projects were compiled into their respective categories (i.e. Habitat Protection, Habitat Restoration, etc.), then sorted by Cooperator, then by Fiscal Year. You should be able to find a particular project by locating the Category, Cooperator's organization or last name, and then the specific Fiscal Year in which the project was funded.

The intent of the survey was to provide information to the Technical Work Group to allow them to rank FY1994 proposals more knowledgeably. One ranking criterion is "Ability of the proposer to successfully implement the proposed project." We hope this will assist you in this process.

If you need more information, please contact us.

Ron Iverson

Ron Iverson

Attachment

cc Grover - AFF
Bowen - CGS

KLAMATH RIVER FISHERY RESTORATION PROGRAM
FEDERALLY FUNDED PROJECTS
FISCAL YEARS 1989-93

FY	PROJECT NUMBER	COOPERATOR	SUBBASIN/PLAN AREA	PROJECT DESCRIPTION	COST	COMMENT
** Category: Education						
92	E-14	Calif Sal, Sthd & Trt Rest. Fed.	Klamath Basin	10th Annual Conference	2500	Project objective: to disseminate information on salmonid habitat and population restoration. (Applies to LRP objective 6) Findings: Project objective met. Contract history: Contract closed.
93	E- 8	Calif Sal, Sthd & Trt Rest. Fed.	Klamath Basin	11th Annual Conference.	3000	See comments for project 92-E-14.
90	3.21	Chico State University	Klamath Basin	Questionnaire survey.	18268	Project objective: to survey public to develop a baseline of public knowledge on fish restoration issues in the Klamath Basin. (Applies to LRP policy 7.4) Findings: None reported yet. Agreement history: Survey pending OMB approval.
89	3.1	Contract - Diane Higgins	Klamath Basin	4-6 grade: Develop classroom curriculum, teacher training and field activities.	67000	Project objective: Educate public school children about: 1) life histo ry and environmental needs of anadromous salmonids, 2) restoration efforts (esp. Klamath Task Force), and 3) harvest management (esp. Klamath Council). Findings: 4-6 grade curriculum outline, cross-reference to State science framework, field activities plan, videotape library and final curriculum. History: Final report due December '90. Final report received January '91, but outstanding tasks were not completed until September '91.
90	3.1	Contract - Diane Higgins	Klamath Basin	7-8 grade: Develop classroom curriculum, teacher training and field activities	66040	Project objective: See comments for 89(3.1). Findings: Received: 7-8 grade curriculum, final report etc. History: Curriculum due 3/91, amended to 2/92, received 8/92. Draft report of the evaluation of the 4-6th grade curriculum due 9/91, amended to 2/92, amended to 6/92, received 8/92. Final report due 12/31, amended to 4/92, amended to 7/92, received 8/92.
91	E- 8	Contract - Diane Higgins	Klamath Basin	9-12 grade: aquatic education program.	67888	Project objective: See comments for 89(3.1). Findings: Work session for teachers is completed (Task One). Other tasks are underway. History: Tasks underway. Funded from fy90.
92	E- 8	Contract - Diane Higgins	Klamath Basin	9-12 grade: Develop classroom curriculum, teacher training and field activities	0	Project objective: See comments for 89(3.1). Findings: History:
91	E- 1	Etna Elementary School District	Scott River subbasin	Educational field study of fish requirements and riparian restoration.	42665	Project objective: Develop a field study program to educate school children about the value of anadromous fish. Findings: This new field study curriculum dovetails with the Klamath River Studies curriculum so that Siskiyou County 5th-8th graders receive an in-depth look at their local aquatic environment. Agreement history: Final report due December '91, modified to June '92 (received on time).

KLAMATH RIVER FISHERY RESTORATION PROGRAM
FEDERALLY FUNDED PROJECTS
FISCAL YEARS 1989-93

FY	PROJECT NUMBER	COOPERATOR	SUBBASIN/PLAN AREA	PROJECT DESCRIPTION	COST	COMMENT
91	E- 4	Fisheries Focus - Paula Yoon	Klamath Basin	Portable information display for Klamath Fishery Restoration Program	7500	Project objective: Develop 3-sided transportable display that uses photographs, text and graphics to convey information about the Klamath Restoration Program. Findings: Display constructed with high quality materials. Information conveyed reviewed by advisory committee and KRFRO staff. History: Justifiable cost for high quality product that was built in a timely manner. Display in use throughout basin.
93	E- 6	Fisheries Focus - Paula Yoon	Klamath Basin	Portable information display for upper Klamath watershed.	8500	Project objectives: Develop an informational display on the upper Klamath River in order to: 1) clearly explain the goals and objectives of the Klamath Restoration Program to the general public, 2) show how these goals and objectives are being met with appropriate photographs, and 3) increase the public's understanding of the restoration program. Findings: None reported yet. Contract history: Services and supplies provided on past contracts have been timely, cost effective and high quality.
92	E-13	Klamath Forest Alliance	Salmon River subbasin	"Salmon ED Workshops"	1600	Project objective: Utilize local coordinator to reach local peopl e with information on the Klamath Restoration Program. Hold works hops for the community and school children that highlight the value of anadromous fish. Encourage local protection of salmonids. Findings: Two well attended evening workshops were held in addition to three daytime workshops. Valuable information on life history, fishery management and tribal fisheries was conveyed to local citizens. Local interest is high as a result of these workshops. History: Project complete. Timely.
92	E-	Native American FishaWildlf Society	Klamath Basin	Annual conference to discuss fish and wildlife issues affecting tribal resources	1000	Project objective: Provide funds for partial sponsorship of conference. Findings: Conference held October '91 in Eureka, CA. History: Project complete.
92	E-11	U.C. Extension-Davis	Klamath Basin	Conference on decomposed granitic soil: Problems and solutions.	4000	Project objective: Establish an information sharing forum to address one of the three main problems leading to the reduction of anadromous fish habitat -- sedimentation. Findings: Conference held October 21-23, 1992 in Redding, CA. Agreement history: Final report due June 1993.
93	E- 2	USFS Six Rivers NF, Orleans Dist	Lower Klamath subbasin	Public fisheries education through nonconsumptive enjoyment.	2750	Project objective: Provide education experiences which enhance understanding, stewardship and nonconsumptive use of our local fish resources. Findings: None reported yet. Agreement history: Draft interagency agreement sent to cooperator 3/93.
89	S.2	USFWS Klamath River FRO	Klamath Basin	Public Communication and Education Program.	30000	Project objective: Introduce the general public and special interest groups to the activities of the Klamath Restoration Program and develop communications media to provide more detailed information to interested

KLAMATH RIVER FISHERY RESTORATION PROGRAM
FEDERALLY FUNDED PROJECTS
FISCAL YEARS 1989-93

FY	PROJECT NUMBER	COOPERATOR	SUBBASIN/PLAN AREA	PROJECT DESCRIPTION	COST	COMMENT
						parties. Findings: Two very well attended public scoping sessions were held to receive comments from the public on priorities for restoration (and meet NEPA requirements). Press releases on restoration activities were mailed to media and background research on a professionally produced slide/tape program was initiated. Other activities included: interviewed for a special televised news program on KEET TV, cooperated with Klamath National Forest to develop National Fishing Week activities and interpretive fish life history signs.History: Budget funded 6 months of staff time for a fishery biologist/interpreter.
90	3.2	USFWS Klamath River FRO	Klamath Basin	Public Communication and Education Program.	39648	Project objective: Continue educational activities and communications efforts with the public and special interest groups. Findings: Educational activities such as the slide/tape progras, handouts, talks, press releases, displays at the county fair and p ublic meetings on the Long Range Restoration Plan were held to con tinue the dialogue with the people interested in the activities of the restoration program. History: Program consists of one staff position, equipment, travel, photographic supplies, room rental etc.
91	E- 8	USFWS Klamath River FRO	Klamath Basin	Public Communication and Education Program.	40000	Project objective: Continue communication and understanding between interest groups and participants in the restoration program. Findings: Five public meetings, fifteen additional slide presentations, eighteen press releases and two draft long range plans were utilized as educational media to help people understand more about the restoration program. Final long range restoration plans were mailed to 600 interested parties. Administration of the curriculum development contract and other communication product purchases continued. Program history: KRFRO staff time for communication/education/pub lic involvement duties is decreasing as responsibilities increase fo r providing support to the federal advisory committees.
93	E-13	USFWS Klamath River FRO	Klamath Basin	Salmon Education Community Workshops.	0	Project objectives: Increase the public's understanding of the value of anadromous fish and gain local support for agency and tribal restoration efforts by holding community workshops. LRP policy 6.2.d and 6.2.g Findings: None reported yet. Agreement history: Workshop tentatively scheduled to be held in late summer/early fall. Coordinator position will be hired in June.
93	E-11	USFWS Klamath River FRO	Scott River subbasin	Salmon Education Community Workshops.	0	See comments for project 93-E-13.
93	E-12	USFWS Klamath River FRO	Middle Klamath subbasin	Salmon Education Community Workshops.	0	See comments for project 93-E-13.
93	E-14	USFWS Klamath River FRO	Lower Klamath subbasin	Salmon education community workshops.	0	See comments for 93-E-13.

KLAMATH RIVER FISHERY RESTORATION PROGRAM
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FY	PROJECT NUMBER	COOPERATOR	SUBBASIN/PLAN AREA	PROJECT DESCRIPTION	COST	COMMENT
93	E-10	USFWS Klamath River FRO	Shasta River subbasin	Salmon Education Community Workshops.	0	See comments for 93-E-13.
93	E-15	USFWS Klamath River FRO	Salmon River subbasin	Salmon River salmon festival.	4000	Project objective: Inform the public about the value of anadromous fish and gain local support for the restoration program by holding an educational forum and festival. Findings: None reported yet. Agreement history: Steering committee begins planning in April for Festival/Forum to be held in Sept '93. Coordinator will be hired in June.
** Subtotal **					357823	
** Category: Fish Protection						
92	FP- 8	Cal Poly State Univ Foundation	Salmon River subbasin	Population Differentiation of Spring and Fall Chinook.	18434	Project objectives: 1) to distinguish between spring and fall chinook stocks using nuclear DNA agarose gel electrophoresis technology, 2) to determine extent of population distribution in the river, 3) to determine relative proportions of juveniles in the outmigrant population. (Applies to LRP policies: 4.3 and 4.4) Findings: DNA polymorphisms were noted between stocks, however sample credibility was questionable. Researchers assert that stocks can be distinguised by this technique. Agreement history: Agreement modified once to add $2,325 for more exhaustive sample analysis, and to extend final reporting date by six months. Final report due 6-30-93. KRFRO's assessment: Project objectives partially met, but final report not submitted yet. The cooperator has demonstrated effectiveness of technique, but has not applied it to meet objectives 2 and 3. May come in final report.
89	8.21	California Dept. of Fish and Game	Middle Klamath subbasin	Estimate fall chinook escapement operating adult capture weirs.	41700	Project objectives: 1) to monitor adult fall chinook escapement in Rogue Creek, Shasta, Scott, Salmon Rivers, and some smaller tributaries of the middle Klamath subbasin. (Applies to LRP policies 4.3, 4.4, and 4.7) Findings: 1988 fall escapement estimates made for 16 separate areas, totalling 38,813 fall chinook for the Klamath Basin excluding the Trinity River system. Agreement history: Agreement modified to extend termination date by three years and to allow full expenditure of funds. Project objectives met, but final payment not yet made due to accounting difficulties with the State and Denver Finance Center. Annual report received 3-16-90.
89	8.25	California Dept. of Fish and Game	Salmon River subbasin	Hydroacoustic weir, Salmon River.	21500	Project objective: To determine the feasibility of using this technique in making run size estimates. (Applies to LRP policies 4.3 and 4.7) Findings: Run size estimation was impossible because of "milling" behavior of the fish at the monitoring sites. Equipment failure also contributed to poor results. Cooperator asserts that problems are minor and can be overcome. Agreement history: Project objectives met. Final report received 3-8-90, invoice paid for first year of work. Project activity stopped because of poor results.

KLAMATH RIVER FISHERY RESTORATION PROGRAM
FEDERALLY FUNDED PROJECTS
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FY	PROJECT NUMBER	COOPERATOR	SUBBASIN/PLAN AREA	PROJECT DESCRIPTION	COST	COMMENT
91	FP-19B	California Dept. of Fish and Game	Shasta River subbasin	Modify and repair Shasta River fish counting facility.	17777	Project objective: To modify the Shasta River adult capture weir to improve trapping efficiency. (Applies to LRP policies 4.3 and 4.7) Findings: Weir structure was modified but not according to proposed plans. High water levels made cement pouring impossible. Cooperator claims improved trapping efficiency. Agreement history: Agreement was modified to allow new design features, and to reduce funding by $5,862. Project objective was met, final report due 2-15-92, received 4-10-92. Final payment in progress.
89	2.12	Dr. Dave Hankin	Pacific Ocean	Study to determine tagging needs for time/area fisheries management.	36400	Project objective: To determine level of coded wire tagging required to support time/area ocean harvest management. (Applies to LRP policies 4.2 and 4.3) Findings: The cooperator concludes that it is impossible to obtain reliable estimates of a total of 30 time/area-specific age 4 ocean fishery exploitation rates from CWT recovery data. Agreement history: The final report was due 2-28-90, received 5-21-90. Project objective was met, final payment made, agreement closed.
92	FP-11	Hoopa Valley Tribe	Lower Klamath subbasin	Estimate population size and range of green sturgeon.	14058	Project objective: To determine range of adult green sturgeon in the Klamath River basin by use of tag return data. (Applies to LRP policy 4.3) Findings: Project objective not met yet. Tag effort began too late in 1992, cooperator received no fish from tribal fishermen. Will begin again in spring 1993. Agreement history: Modified agreement to extend all milestone and completion dates by one year. Final report due 2-28-1994.
92	FP-18	Hoopa Valley Tribe	Lower Klamath subbasin	Monitoring outmigrating salmonids on Pine Creek.	49128	Project objective: 1) to evaluate effectiveness of upslope restoration by monitoring juvenile salmonid populations for three consecutive years to establish a baseline productivity index. (Applies to LRP policy 3.9) Findings: Project in progress. Stress related juvenile fish mortality was excessive (as high as 30%), some handling techniques were changed to compensate. Agreement history: Agreement modified to provide additional funding ($24,128) to complete the 3 year survey. Payment for first year of services is in progress.
90	FP- 1	Karuk Tribe of California	Middle Klamath subbasin	Estimate, by species, Karuk subsistence harvest at Ishi Pishi Falls.	15295	Project objectives: 1) to provide estimate of fall 1990 Karuk Tribal salmonid harvest for the Klamath Fishery Management Council. 2) to provide biological information on run size, timing, age structure 3) to provide information on in-river habitat condition. (Applies to LRP policie s 4.2 and 4.3) Findings: 200 salmonids reported as harvested by Karuk subsistence fishermen in fall 1990. Project objectives met. Agreement history: During project implementation, some confusion arose as to whether ceremonial harvest was to be included in the total subsistence harvest estimate. The issue was resolved after much

KLAMATH RIVER FISHERY RESTORATION PROGRAM
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FY	PROJECT NUMBER	COOPERATOR	SUBBASIN/PLAN AREA	PROJECT DESCRIPTION	COST	COMMENT
						correspondence. Final (annual) report submitted on schedule. Agreement closed.
91	FP- 1	Karuk Tribe of California	Middle Klamath subbasin	Estimate, by species, Karuk subsistence harvest at Ishi Pishi Falls.	19537	Project objectives: 1) to provide estimate of [redacted] spring and fall 1991 Karuk Tribal salmonid harvest for the Klamath Fishery Management Council. 2) to provide biological information on run size, timing, and age structure. 3) to provide information on in-river habitat condition. (Applies to LRP policies 4.2, 4.3) Findings: 505 salmonids reported as harvested by Karuk subsistence fishermen in spring and fall 1991. Project objectives met. Agreement history: Agreement modified twice: once to reduce funding by $3,947 because of reduced run size and fishing/monitoring effort, and once to extend the final reporting date by one year. Final report received 2-17-93 (originally due 12-31-91). Final invoice sent to Denver Finance Center 3-08-93.
93	FP-13	Nakamoto/Kisanuki	Mainstem Klamath River	Age and growth of Klamath River green sturgeon.	8340	Project objectives: to document age structure of the Klamath River population and provide descriptive growth data related to past life history. (Applies to LRP policy 4.3) Findings: None. Project not implemented yet. Agreement history: Agreement signed by cooperator, returned to KRFRO. No further activity.
90	4.3	PSMFC	Middle Klamath subbasin	Temporary help for Yreka Screen Shop.	23911	Project objectives: 1) to increase staffing of CDFG operated Yreka Screen Shop to enhance screen construction/maintenance capabilities in Shasta and Scott Rivers and Middle Klamath tributaries, 2) to increase fish rescue efforts in same area. (Applies to LRP policy 3.11) Findings: Cooperator reported 78,000 fish rescued in 1990. Temporary employee performed maintenance on 50 diversion screens and fabricated three new systems, including constructing cement foundations at these sites. Project objectives met. Agreement history: No modifications. Final report received on schedule. Agreement closed.
91	MR-15	PSMFC	Middle Klamath subbasin	Temporary help for Yreka Screen Shop.	27589	Project Objective: Same as project 90-4.3 Findings: Continuation of project from FY1990. Very low total of 28,439 salmonids rescued in 1991 trapping season. Screen maintenance continued, no new screen sites were developed. Project objectives met. Agreement history: No modifications, final report received 4-20-92 (due 2-15-92). Agreement closed.
92	FP-16	PSMFC	Middle Klamath subbasin	Temporary help for Yreka Screen Shop.	29116	Project objectives: Same as project 90-4.3 Findings: Seasonal employee refabricated three screen wiper systems and one drive arm assembly. Remodeled two screen sites with new cement foundations, floors and walls. Conducted stream surveys of beaver dams, assisted in removal. Repaired over 50 screens and traps. Assisted USFS crews with habitat restoration on Yreka Creek. Permanent CDFG staff worked outside Klamath basin during season, leaving seasonal employee in charge of project

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						objectives met. Agreement history: No modifications. Project completed 12/31/92. final report submitted on schedule. Final payment in progress.
93	FP- 3	PSMFC	Middle Klamath subbasin	Temporary help for Yreka Screen Shop.	31118	Project objectives: Same as project 90-4.3. (Page 6) Findings: No reports received at KRFRO yet. Agreement history: Signed agreement received at KRFRO 3-4-93.
89	2.31	USFS Klamath National Forest	Middle Klamath subbasin	Steelhead escapement, selected tributaries.	73400	Project Objective: to estimate chinook, coho, and steelhead adult spawner use of 126 stream-miles. (Applies to LRP policies 4.3, 4.7) Findings: Cooperator identified 68,000 m2 of spawning substrate, which could accommodate 12,600 chinook redds and 38,800 steelhead redds. Steelhead and chinook redds totalled 757 and 2,174, respectively during the 1989/90 spawning season. Only two coho redds were observed in the survey, but many tributary systems contained juvenile coho in summer of 1989, indicating that successful coho spawning occurred. Recommendations for various portions of the study area included riparian revegetation, provision of large woody debris, streambank stabilization, and stream flow augmentation to facilitate restoration. Project objectives met. Agreement history: Agreement modified to extend final report submittal date from 1-01-90 to 2-01-90. Final report received 3-13-90. Agreement closed.
90	2.21	USFS Klamath National Forest	Klamath Basin	Spawning ground utilization surveys.	81568	Project objective: 1) to provide a multi-year comparison of spawner use throughout the Salmon, Scott, and mid-Klamath subbasins, 2) to determine how much suitable spawning habitat exists at base-flow conditions, 3) to determine habitat preference, use, and spawn timing by species (coho, chinook, steelhead). (Applies to LRP policies 3.12, 3.13, 4.3, and 4.7) Findings: Cooperator identified 67,000 m2 of suitable spawning habitat which would accommodate 14,000 chinook redds and 48,000 steelhead redds. Chinook redds totalled 1,340 and 877 in fall 1990 and 1990 seasons, respectively. Steelhead redds totalled 1,492 and 889 in spring 1990 and 1991 seasons, respectively. Chinook spawning started mid-September and ended by late November, each year. Steelhead spawning started by late February and ended by mid-May, each year. Primary recommendations are to carefully consider impacts of bioenhancement activities on natural stocks; ask CDFG to consider delaying start of annual suction dredge season in tributaries inhabitated by late spawning steelhead, and close angling to portions of Salmon River below Oak Bottom weir. Project objectives met. Agreement history: Final agreement submitted 1-92 (due 2-91). Agreement still open, pending completion of other projects.
90	3.88	USFS Six Rivers National Forest	Middle Klamath subbasin	Camp Creek downstream migrant study.	14998	Project objective: to evaluate production and outmigrant timing of juvenile anadromous salmonids in Camp Creek. (Applies to LRP policies 4.3, 4.7) Findings: Trapping sites and techniques have been selected. Trapping occurred in 1991 and 1992 outmigration periods. Final report not received. Objective not met yet.

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						Agreement history: Agreement modified to extend termination date from 2-01-92 to 3-31-93. Twenty-three percent of funds expended.
92	FP- 7	USFWS CA/NV Fish Health Center	Mainstem Klamath River	Health and physiology monitoring of hatchery and natural outmigrating chinook.	10105	Project objective: to determine the health status of salmonid stocks (hatchery and wild) in the Klamath River at the time of their smolt migration. (Applies to LRP policy 5.A.1, 5.B.2) Findings: None reported. Agreement history: Final report due 9-30-92.
93	FP- 4	USFWS CA/NV Fish Health Center	Mainstem Klamath River	Health and physiology monitoring of hatchery and natural outmigrating chinook.	14000	Project objective: to add to existing database on disease pathogens, level of infection, and degree of impact on Klamath River juvenile salmonids. (Applies to LRP policy 5.A.1, 5.B.2) Findings: None reported. Agreement history: Agreement signed 11-17-92. Final report due 2-15-94.
89	2.22	USFWS Coastal California FRO	Lower Klamath subbasin	Fall chinook escapement, Lower Klamath subbasin.	24000	
89	2.23	USFWS Coastal California FRO	Lower Klamath subbasin	Fall chinook escapement, Blue Creek.	43800	Project objectives: 1) to determine fall chinook spawner escapement, distribution, and habitat utilization. 2) to determine juvenile salmonid production, 3) to survey existing habitat conditions in the study area for the 1988/89 fish production year. (Applies to policy 4.3, 4.7) Findings: Fall 1988 chinook spawner escapement was estimated between 288 and 320 adults. Spawning migration occurred from August to December with peak immigration occurring in late October and early November. 10,892 resultant juvenile chinook were trapped in the lower reach in 1989. Chinook outmigration occurred from April to July, 1989; steelhead outmigration began in April, peaked in June, and continued through the trapping effort which ended July 21, 1989. Coho juveniles appeared in small numbers throughout the sampling season. 11,808 chinook juveniles were coded wire tagged for future evaluation. Recurring high winter flows impact channel morphology, rearing and spawning habitat, and directly impact egg survival. Project objectives met. Agreement history: Final report received on schedule, 9-90. Project completed.
89	2.48	USFWS Coastal California FRO	Lower Klamath subbasin	Juvenile production surveys of the lower Klamath River tributaries.	0	Project objective: 1) to assess chinook and steelhead spawning and rearing habitat in 10 lower Klamath River tributaries during 1988 field season, 2) to eventually survey 24 tribs. (Applies to LRP policy 3.19) Findings: Steelhead occurred in all of the streams and were the dominant species in eight of the ten streams surveyed. Juvenile chinook were present in seven of ten streams but were common in only three. Coho salmon and cutthroat trout were uncommon in all streams. Juvenile chinook outmigration began the first week of April and ceased by mid-[illegible]. Steelhead fry outmigration began the second week in May, pe[illegible]est week

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						in May, and remained at low numbers to the end of the trapping season. Available spawning habitat is thought to be underutilized. Project objectives met. Agreement history: Project complete. Final report received on schedule (2-90).
89	2.21	USFWS Coastal California FRO	Lower Klamath subbasin	Trap outmigrants on the lower Klamath River mainstem.	27200	Project objectives: 1) to provide an annual index of juvenile outmigrant production in the Klamath and Trinity Rivers. 2) to estimate the hatchery/wild composition of the juvenile salmonid standing crop. 3) to estimate migration rates for each species and for each river system. (Applies to LRP policies 4.7, 5.A.1) Findings: Results of screw trap operation indicate that hatchery produced chinook make up 48% of total chinook outmigrant population in the Klamath River at Big Bar (above the confluence with the Trinity River). Screw trap results on the Trinity River near Willow Creek indicate a hatchery component of 53% of the total chinook outmigrant population. Results of mainstem seining below the confluence of the Klamath and Trinity Rivers indicate a 42% hatchery component of the total chinook outmigrant population. Mean migration rate for Iron Gate Hatchery fall chinook smolts was 10.7 river-kilometers/day, and 4.0 rkm/day for presmolts. The mean migration rate for Trinity River Hatchery fall chinook smolts was 14.0 rkm/day. Project objectives met. Agreement history: Final report received 9/91 (due 3/90). Project complete.
90	2.23	USFWS Coastal California FRO	Lower Klamath subbasin	Blue Creek studies.	53400	Project objectives: See project 89-2.23. Findings: Numbers of returning adult fall chinook were very low in both 1989-90 and 1990-91 seasons. Only 6% of the maximum potential number of redds were seen in 1990 and 2% in 1991. Spawning and rearing habitats in Blue Creek appeared suitable for survival and should support a larger spawning population. Juvenile chinook outmigrant indexes were 32,000 for 1990 and 12,500 for 1991. Only 3,308 and 3,088 chinook were coded wire tagged in 1990 and 1991, respectively. Temperatures in Blue Creek were cooler than in the mainstem Klamath River during summer months (10-19 degrees C versus 18-26 degrees C). Project objectives met. Agreement history: Final report submitted 11/92 (due 3/91). Report was incorporated into annual report for 1991 study. Project complete.
90	2.22	USFWS Coastal California FRO	Lower Klamath subbasin	Habitat/fish inventory of the lower tributaries to the Klamath River.	26000	Project objectives: See project 89-2.43. Project scope increased to cover 24 streams in the lower Klamath River subbasin. Second year of investigations. Findings: Six streams were selected for survey work in 1990 field season (Hunter, Panther, Bear, Teotah, Tully, and Pine Creeks). Adult spawning surveys in Hunter Creek found 1 chinook redd; Teotah Creek surveys revealed 8 redds while Pine Creek contained 23 redds. No redds were found on Tully Creek. Bear Creek did not have a surface flow by December 7, 1989, and was subsequently not surveyed. Only 93 juvenile chinook were capture in 70 nights of trapping on these six streams, from April 2 to July 8, 1990. Trends in chinook outmigration could not be identified due to low numbers of trapped fish. Teotah Creek appears to be underutilized by adult salmonids. Tully

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						Creek is primarily a steelhead stream. Panther Creek is primarily a rearing pond for coho. Bear Creek appeared to be lacking spawning gravel in the area surveyed. Hunter Creek contained adult chinook in the first 3.0 km of stream. The stream was subsurface above that point, and rearing quality was poor. Project objectives met. Agreement history: Final report received 2-92 (due 3-91). Project complete.
90	2.81	USFWS Coastal California FRO	Lower Klamath subbasin	Trap outmigrants on the mainstem Klamath River.	$7200	Project objectives: See project 89-2.81. Findings: 333 juvenile chinook, 178 juvenile steelhead, and 30 juvenile coho were trapped in spring/summer 1990 at Big Bar. A contribution of 40% hatchery chinook and 60% natural chinook was estimated for the total chinook captured at that location. Mean migration rate for Iron Gate Hatchery chinook was 8.5 rkm/day. Population estimates and indexes were not calculated because of equipment failure during the project. 1,023 chinook, 988 juvenile steelhead, and 272 coho juveniles were trapped in the Trinity River during the spring 1990 trapping season. The hatchery/wild juvenile chinook ratio for this period on the Trinity River was 10/90. The ratio of hatchery/wild chinook shifted to 87/13 for the fall trapping season. The spring outmigration abundance index calculated for the Trinity River was 57,000 chinook, 88,000 steelhead, and 18,000 coho. Project objectives partially met due to equipment failure. Agreement history: Final report received 9/92 (due 3/91). Project complete.
91	FP- 3	USFWS Coastal California FRO	Lower Klamath subbasin	Estimate spawning, juvenile production and habitat of lower Klamath Tributaries.	40800	Project objectives: See project 89-2.43. Third year of investigations. Survey High Prairie, Tarup, Ah Pah, Surper, Mettah, and Roach Creeks in 1991 field season. Findings: Extrapolation of 72 nights of trapping totals resulted in juvenile estimates of 40 chinook, 939 coho, 781 steelhead fry, 1,993 steelhead yearlings, 539 cutthroat trout, and 7 chum salmon fry emigrating from the six sampled creeks between late March and early July. Salmonid production is considered critically low in these lower tributaries. Most surveyed streams contained poor to moderate spawning and rearing conditions. Primary recommendation is to modify migration barriers at many stream mouths. Project objectives met. Agreement history: Final report received on schedule (2-92).
91	FP- 4	USFWS Coastal California FRO	Lower Klamath subbasin	Estimate chinook stock status and potential for enhancement on Blue Creek.	$7400	See comments for project 90-2.83. (Page 9)
91	FP- 5	USFWS Coastal California FRO	Middle Klamath subbasin	Monitor juvenile salmonid outmigration at Big Bar, mainstem Klamath River.	$750	Project objectives: See project 90-2.81. Findings: Field work complete. Report not received yet. Agreement history: Final report due 3/93.
91	FP- [redacted]	[redacted] Coastal	Lower Klamath River	Estimate juvenile	[redacted]	Project objectives: 1) to monitor juvenile salmonids on the [redacted]eath.

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		California FRO	and estuary.	fish standing crop and outmigration.		River, 2) to determine timing of natural and hatchery salmonid migrations, 3) to determine size of juvenile salmonids utilizing the lower Klamath River, 4) to determine relative contribution of Iron Gate and Trinity River Hatchery chinook stocks. (Applies to LRP policy 4.3) Findings: Final report not received, cannot assess whether objectives have been met. Agreement history: Final report due 3/92.
92	FP- 5	USFWS Coastal California FRO	Klamath Basin	Age composition/scale analysis of Klamath fall chinook.	5450	Project objective: to determine age composition of the 1991 Klamath River fall chinook run. (Applies to LRP policy 4.2) Findings: The 1991 Klamath River fall chinook run consisted of 1,894 jacks (5.7%), 10,278 3-year-olds (31.1%), 19,884 4-year-olds (60.1%), and 1,013 5- and 6-year-olds (3.1%). Project objective met. Agreement history: Analysis and report completed on schedule, (2-92).
92	FP- 4	USFWS Coastal California FRO	Middle Klamath subbasin	Monitoring of yearling salmonid outmigration at Big Bar, mainstem Klamath River.	8000	Project objectives: See project 91-FP-5. Findings: None reported. Agreement history: Final report due 4-93.
92	FP- 2	USFWS Coastal California FRO	Lower Klamath subbasin	Status of salmon and steelhead stocks of Blue Creek.	58729	Project objectives: See project 91-FP-4. 5-year assessment of this project will be included in final report. Findings: No final report received yet. Agreement history: Final report due 2-94.
93	FP- 6	USFWS Coastal California FRO	Klamath Basin	Age composition/scale analysis of Klamath River fall chinook run - 1992.	7350	Project objective: to determine age composition of the 1992 Klamath River fall chinook run. (Applies to LRP policy 4.2) Findings: The 1992 Klamath River fall chinook run consisted of 12,963 jacks (33.3%), 7,249 3-year-olds (18.6%), 17,708 4-year-olds (45.5%) and 988 5-year-olds (2.5%). No 6-year-old chinook were identified from the 1992 scale composition. Project objective met. Agreement history: Analysis and report completed on schedule (3-93).
93	FP- 5	USFWS Coastal California FRO	Mainstem Klamath River	Monitoring of Klamath River yearling juvenile salmonid outmigration.	9000	Project objective: See project 92-FP-4. Findings: None reported yet. Agreement history: Final report due 4-94.
93	FP- 7	USFWS Coastal California FRO	Mainstem Klamath River	Fall chinook spawning escapement survey.	15220	Project objectives: 1) to identify and quantify potential and actual spawning habitats for fall chinook salmon, 2) to estimate the number of fall chinook spawners in the mainstem Klamath River, 3) to determine proportion of females that spawn. (Applies to LRP policy 4.3 and 4.7). Findings: None reported. Project to begin in fall 1993. Agreement history: Final report due [redacted]. 5-31-1994

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** Subtotal **					974728	
** Category: Fish Restoration						
89	5.11	California Dept. of Fish and Game	Middle Klamath subbasin	Evaluate presmolt chinook release at Iron Gate Fish Hatchery, CWT application.	56600	Project objective: to determine the contribution of chinook salmon, released as presmolts from Iron Gate Hatchery, to the ocean and river fisheries and spawning escapements. (Applies to LRP policy 5.A.1) Findings: Approximately 102,300 1988 brood year fall chinook presmolts were coded wire tagged and ad-clipped at IGH. Tag retention tests indicated that 92,602 fish retained their tags and also were properly clipped. These were released with over 3,000,000 untagged presmolts (269/lb) in the Klamath River at the hatchery on 4-24-89. Project objectives met. Agreement history: Project complete. Annual report received 3-90 (due 1-90). Final report due 9-94.
89	5.12	California Dept. of Fish and Game	Middle Klamath subbasin	Evaluate pond rearing of fall chinook, mid-Klamath tributaries, CWT application.	26600	Project objective: to determine the contribution of Iron Gate fall chinook salmon, released as yearlings from middle Klamath River subbasin ponds, to the ocean and in-river fisheries and to the in-river escapement. (Applies to LRP policies 5.A.1, 5.B.1) Findings: The ratio of tagged and marked fish/total number released, by location is as follows: Red Cap Creek -- 31,268/39,106; Indian Creek -- 33,337/74,402; Bluff Creek -- 33,437/77,966; Grider Creek -- 33,185/37,718; Elk Creek -- 27,340/30,386. Project objective met for 1989. No annual report received for 1991 brood year tagging effort. Agreement history: Project complete. Annual report received 3-90 (due 1-90). Annual report for 1991 brood year was due 1-93. Agreement modified to extend milestone dates by two years to continue tagging effort. Final report due 9-94.
91	FR- 3	California Dept. of Fish and Game	Middle Klamath subbasin	Estimate adult contribution of pond reared salmon on mid-Klamath tributaries.	27000	Project objective: See project 89-5.12. Findings: The ratio of tagged and marked brood year 89 fish/total number released, by location is as follows: Bluff Creek -- 35,892/75,110; Indian Creek -- 26,933/56,864; Elk Creek -- 27,049/30,550. Project objectives met (these three ponds were the only ones operated in 1990). Agreement history: Annual report received 12-17-91 (due 9-30-91). Final report due 9-30-94.
90	5.1	NCIDC	Lower Klamath subbasin	Yurok Reservation late run fall chinook rearing pond program.	109653	Program objectives: 1) to rear and release approximately 40,000 fingerling (90/lb) and 60,000 yearling (10/lb) late fall chinook into five lower Klamath River tributaries (Cappell, Pecwan, Omagar, Hunter, and High Prairie Creeks), 2) to evaluate contribution to fisheries by coded wire tagging and marking all fish prior to release. (Applies to LRP objective 5.B) Findings: A total of 36,650 yearlings and 28,750 subyearlings brood year 1989 late fall chinook were released into select tributaries. (A total of 2,610 BY89 coho yearlings were also released into Hunter (1,860) and Terep (750) Creeks.) Coded wire tagging equipment failure resulted in not [illegible] of the fish being tagged and marked. Project objectives partially met b[illegible]ering and

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				on.		weir trapped 17 late fall chinook, resulting in a take of 36,598 green eggs. No fish were trapped by the Indian Creek Weir. Weir construction/installation on other tributaries did not occur as proposed because of late funding notification. Agreement history: Draft cooperative agreement sent to cooperator 11-92. Cooperator has not returned draft agreement for further processing. Attempting to utilize surplus funds from FY1992 agreement budget.
92	FR- 4	Orleans Rod and Gun Club	Middle Klamath subbasin	Rescued steelhead rearing project on Pearch Creek, near Orleans.	1413	Project objective: to rear rescued steelhead from the Scott River subbasin, to yearling size before return to the Scott River for release. (Applies to LRP objective 5.B). Findings: No fish reared in 1992 season because few fish were rescued by CDFG. Agreement history: Deobligated $9,884.41 of FY1992 funds.
92	FR- 1	Orleans Rod and Gun Club	Middle Klamath subbasin	Upgrade fish rearing facility on Pearch Creek, near Orleans.	9550	Project objective: to upgrade fish rearing facilities. (Applies to LRP objective 5.B) Findings: Roof construction complete. Final report or invoice not received 2-26-91. Agreement history: Agreement termination date 8-18-93.
93	FR- 3	Orleans Rod and Gun Club	Lower Klamath subbasin	Orleans community anadromous fish rearing.	12476	Project objective: See project 92-FR-4. Findings: None reported. Expect fish in spring 1993. Agreement history: Agreement signed 2-16-93.
** Subtotal **					1009139	
** Category: Habitat Protection						
89	2.01	California Dept. of Water Resources	Scott River subbasin	Feasibility study for augmenting flows in the mainstem Scott River.	36000	Project objectives: 1) to identify possible methods for increasing flows in the Scott Valley portion of the Scott River from May through October, 2) determine if a Scott River instream flow needs study is justified. (Applies to LRP policies 2.C.2, 2.F.1 and 3.7) Findings: Several alternatives are suggested to augment stream flows in the Scott River, but all are expensive or difficult to implement. Water conservation, water transfers, and development of water storage facilities are the three proposed alternatives. An instream flow study is recommended. Project objectives met. Agreement history: Agreement modified twice to extend the termination date to allow completion of final report. Final report received 10-91 (due 9-90). Agreement closed.
91	NP- 1	Energy and Resource Advocates	Lower and Middle Klamath subbasins	Remote sensing and GIS feasibility analysis from Salmon River, downstream.	86830	Project objectives: 1) to provide a visual image of the lower Klamath River subbasin using remote sensing/landsat thematic mapper imagery from 1984 and 1990, 2) to search for available computerized and non-computerized natural resource information that can be assembled into a GIS system. (Applies to LRP policy 3.2) Findings: Draft report indicates that land disturbance is excessive in the lower Klamath subbasin, primarily associated with timber harvest and forest

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						fires. Increased sedimentation has resulted from mass wasting and surface erosion. Final report not received yet. Partial fulfillment of objectives. Agreement history: Agreement modified twice to extend termination date in order to complete the final report. Report originally due 6-31-92. 5-31-91
91	HP- 3	HSU/CCFRU	Salmon River subbasin	Estimate spawning and rearing habitat for spring chinook.	10281	Project objectives: to provide information on spawning and rearing habitat utilization and habitat availability for wild spring chinook salmon of the Salmon River. (Applies to LRP policy 4.9) Findings: 30 spring chinook were trapped and radio tagged in summer, 1990. 73% of these fish survived to spawn. Spawning began 9-22-90 and ended 10-15-90. Tissue samples were collected for genetics analysis at a later date (and included in a different project). Redds were mapped and monitored, progeny trapped at swim-up between 3-9 and 6-22-90. Juvenile chinook were monitored for habitat preferences and outmigrant timing. Compilation and analysis of field data is ongoing. Final report not received. Project objectives partially met. Agreement history: Annual progress reports received 12-90 and 8-92 (due 12 90 and 12-91, respectively). Final report not received yet (due 12-92).
89	2.42	Hoopa Valley Tribe	Lower Klamath subbasin	Erosion site inventory and restoration plan development for Pine Creek watershed	31905	Project objectives: 1) to implement Phase I of the Pine Creek model watershed restoration project, 2) to identify and map erosion sites in the Pine Creek Watershed. (Applies to LRP policy 3.9) Findings: Selected stream channels, slopes and over 100 miles of active and abandoned roads in the watershed were mapped or inventoried for existing and potential erosion problems that threaten to damage fisheries resources. A database of 445 sites was developed with each site identified and described in detail. The cooperator developed treatment recommendations for 150 work locations on nine large treatment areas. Treatment of these areas may prevent at least 45,000 cubic yards of sediment from entering water courses and being delivered to Pine Creek. Total cost estimated for treatment is $200,000 (4.45/yd3). Project objective met. Agreement history: Agreement modified twice to extend termination date from 01-30-90 to 12-31-90. Final report received 3-25-91 (due 01-30-90). Agreement closed.
90	2.42	Hoopa Valley Tribe	Lower Klamath subbasin	Pine Creek habitat evaluation/improvement assessment.	31188	Project Objectives: 1) to implement Phase II of the Pine Creek model watershed restoration project, 2) to assess summer and winter habitat conditions and fish abundance for spawning and rearing steelhead and chinook, 3) determine potential capacity of the Pine Creek system, 4) develop site-specific habitat improvement prescriptions, (Applies to LRP policy 3.9) Findings: Final report not received yet. Cannot determine if project objectives have been met. Agreement history: Agreement modified four times to extend the termination date to allow for completion of the final report. Termination date 12-31-92. Have not received final report, originally due 3-01-91.
92	HP- 1	Valley Tribe	Lower Klamath subbasin	Sediment monitoring on Pine Creek.	[redacted]	Project objectives: 1) to implement Phase IV of the Pine Creek [redacted] watershed restoration project, 2) to evaluate effectiveness of

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						marking the full quantity scoped for. However, broodstock escapement is beyond the control of the cooperator. Agreement history: Project complete. Final report received on sch edule (2/91). Agreement was modified twice to revise the budget by shifting funds to other cost categories. Overall budget was not changed.
90	FR-117	NCIDC	Middle Klamath subbasin	Middle Klamath chinook rearing pond operation.	26000	Project objectives: 1) to pond-rear approximately 120,000 brood year 1989 Iron Gate Hatchery fall chinook to yearling size and release on site in middle Klamath River subbasin tributaries, 2) to trap adults and rear progeny of late fall chinook on Camp Creek, and release on-site. (Applies to LRP objective 5.B) Findings: Reared/released: 59,867 yearlings into Indian Creek (50% were CWTagged); 30,550 yearlings into Elk Creek (100% CWTagged); 78,499 yearlings into Bluff Creek (50% CWTagged); 11,070 yearlings into Camp Creek (left maxillary clip). Total yearlings released = 180,186. Project objective met. Agreement history: Funding of this project was taken over by the USFWS part way through the rearing season. Project complete. Final report received on schedule, 2-8-91
91	FR- 1	NCIDC	Lower Klamath subbasin	Yurok Reservation late run fall chinook rearing pond program.	99818	Project objectives: See project 90-8.1 Findings: Continuation of annual fish rearing project. Releases of brood year 1990 fall chinook: 4,702 subyearlings (no CWT) into Hunter Creek; 8,740 yearlings (all CWTagged) into Hunter Creek; 12,300 yearlings (all CWTagged) into Coppell Creek; 3,000 subyearlings (all CWTagged) and 8,143 yearlings (all CWTagged) into Pecwan Creek. Total releases: 23,183 yearlings and 7,702 subyearlings. Project objectives partially met. Poor escapement resulted in low egg take. Agreement history: Agreement was modified once to facilitate changes in rearing strategies. Final report received 3-18-92 (due 1-01-92). Agreement closed.
91	FR- 2	NCIDC	Lower Klamath subbasin	Late run fall chinook gillnet capture on mainstem Klamath.	33498	Project objective: to trap sufficient BY1990 broodstock in Hunter Creek and the mainstem Klamath River to supply enough eyed eggs to the Yurok A elevated rearing pond project to meet production goals of 100,000 fish (40,000 yearlings and 60,000 fingerlings). (Applies to LRP objective 5.B) Findings: Hunter Creek weir trapped 8 fall chinook, and mainstem gill. t capture component caught and spawned 13 female late fall chinook. To. ' eyed eggs delivered to the program was 89,991. Project objective partially met. Low escapement beyond control of cooperator. Agreement history: Project complete. Final report received on schedule, 3-15-91. Agreement closed.
92	FR- 3	NCIDC	Lower Klamath subbasin	Fish rescue and rearing project on lower Klamath River mainstem.	400	Project objective: to survey lower Klamath River side pools for stranded fish, trap and rear chinook in Yurok fish rearing facilities. (Applies to LRP policy 5.B.6) Findings: Initial survey indicated few fish were stranded, project was

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						discontinued. No need to continue, project objectives not attempted beyond initial survey. Agreement history: $2,350 FY1992 funds were deobligated. Project complete.
92	FR- 2	NCIDC	Lower Klamath subbasin	Late run fall chinook gillnet capture on mainstem Klamath.	13164	Project objectives: 1) See project 91-FR-2. (project will include broodstock capture efforts at the mouth of Cappell Creek). Findings: One grilse trapped at Hunter Creek Weir; 0 females trapped and spawned near the mouth of Cappell Creek, 15 females trapped and spawned in the mainstem gillnet capture effort. Total green eggs delivered to the Yurok accelerated stocking program was approximately 75,039. Project objectives only partially met because of low escapement. Agreement history: $10,700 FY1991 funds obligated for project. To tal cost of project $23,884. Project complete. Final report received on schedule. 3-02-92.
92	FR- 6	NCIDC	Middle Klamath subbasin	Middle Klamath chinook rearing pond operation.	101712	Project objective: See project 90-FR-117. Findings: *Released approximately 142,000 yearlings in October, 1992.* Agreement history: Final report not received yet (due 12-31-92). Cooperator identified surplus funds totalling $32,637 for project. Agreement modified to utilize surplus funds for start up, broodstock collection, and early rearing phases of 1992/93 trapping/rearing season.
92	FR- 8	NCIDC	Lower Klamath subbasin	Yurok Reservation late run fall chinook rearing pond program.	133058	Project objectives: See project 90-8.1. Findings: Continuation of annual fish rearing project. Approximately 36,700 yearlings released in October/November 1992. Agreement history: Final report not received yet (due 12-31-92). Cooperator identified surplus funds totalling $29,758 for project. Modified agreement to utilize surplus funds for broodstock collection and early start-up rearing phases for 1992/93 fish rearing season.
93	FR- 8	NCIDC	Lower Klamath subbasin	Yurok Reservation late run fall chinook rearing program.	186810	Project objectives: 1) to trap and spawn sufficient late fall run chinook to provide enough green eggs to produce 25,000 fingerling and 75,000 yearling chinook. 2) to rear juveniles in lower Klamath River tributaries to target size before release. (Applies to LRP objective 5.A) Findings: First interim report for October and November 1992 indicates 53 females and 59 males captured in mainstem gillnet capture project. No fish trapped in Hunter Creek. 31,741 green e ggs on hand by 11-31-92. 28 adults captured in mainstem near the mouth of Cappell -- not report on nwabers spawned or eggs obtained. Trapping operation in Pecwan Creek was unsuccessful because of erratic flows. Project objectives partially met at time of reporting. Agreement history: Draft agreement sent to cooperater 11/92. Have not received comments cooperater on draft agreement.
93	FR- 9	NCIDC	Klamath Basin	Middle Klamath chinook rearing pond and broodstock weir construction/operati	200767	Project objective: to trap adults, spawn, rear and release 120,000 yearling fall chinook in various middle Klamath tributaries. (Applies to LRP objective 5.B) Findings: Trapping weirs were operated on Camp and Indian C[redacted] Camp Creek

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						watershed restoration efforts by monitoring and evaluating the change in channel bedform and spawning gravel quality for three consecutive years. (Applies to LRP policy 3.9) Findings: Cannot assess whether project objective has been partially achieved because first annual report not yet received (due 2-28-93). Agreement history: No modifications. Termination date 3-31-95.
92	HP-18	Karuk Tribe of California	Mainstem Klamath River	Water temperature monitoring of the Klamath River mainstem at seven locations	24000	Project objectives: 1) to sample daily seasonal daily water temperature conditions throughout the Klamath River mainstem, 2) to isolate changes in mainstem water temperatures by stream reach, 3) to determine if streamflows from Lost River, Keno and Iron Gate Dams significantly affect water temperatures in the Klamath River, 4) incorporate data into clean water assessments. (Applies to LRP policy 3.13) Findings: Equipment purchased, monitoring sites identified, monitoring began in 1992 at Ishi Pishi Falls. Project objectives partially met. First quarterly report received on schedule. Project to be completed by 8-95. Agreement history: FY1993 proposal funded with FY1992 funds to allow earlier start of project. $24,000 FY1992 funds obligated. Modified agreement to increase funding by $12,740 of FY1993 funds to fully fund project.
93	HP-18	Karuk Tribe of California	Mainstem Klamath River	Water temperature monitoring of the Klamath River mainstem at seven locations.	12740	See comments for project 92-HP-18.
90	2.71	Shasta Valley RCD	Shasta River subbasin	Shasta River fisheries water quality project.	24470	Project objective: to determine which water quality parameters of the Shasta River have a negative impact on anadromous fish populations in that system. (Applies to LRP policy 2.C.2) Findings: Water quality was monitored during 1990 and the primary limiting factor for fish survival was excessive water temperature in the summer months. Project objectives met. Agreement history: Final report received on schedule (8-31-91). Agreement closed.
89	4.14	Siskiyou RCD	Scott River subbasin	Sediment budget for the Scott River, Phase I.	80000	Project objectives: 1) to analyse watershed dynamics and determine sources of granitic sediment production in the Scott River Basin, 2) determine granitic sediment storage and transport of Scott River within Scott Valley, 3) determine impact of granitic sediment on salmon and steelhead spawning in Scott River and selected tributaries. (Applies to LRP policy 3.7) Findings: Yield of granitic sediments into the Scott River are estimated at 71,500 tons/year. Total erosion estimated at 340,450 tons/year; primary sources are road cuts (40%), streambanks (23%), road fills (21%), skid trails (13%), and the balance from road surfaces, other sheet and rill erosion, and landslides. Variable impacts of sediment on salmonid habitat are reported in the literature, but all indicate increasing impact with increasing fines. Substrate information gathered in this report will provide a good baseline

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						from which to monitor change. Project objectives met. Agreement history: Agreement budget modified to redistribute funds within line items. Final report received 11-90 (due 1-90). Agreement closed.
90	4.2	Siskiyou RCD	Scott River subbasin	Scott River subbasin sediment study, Phase II	30768	Project objectives: 1) to implement Phase II of the Scott River sediment study, 2) inventory erosion sites in French Creek (shown to be contributing significant portion of granitic sediment to Scott River). (Applies to LRP policy 3.7) Findings: The cooperator identified 903 erosion "stations" in the French Creek drainage. These stations were grouped into 162 "reaches" of which 38 were identified as priority reaches for erosion control measures. Treatment of these priority sites would cost and estimated $438,924. Project objectives met. Agreement history: Agreement was modified twice; once to redistribute funds among existing line items, and once to extend the termination date from 1-91 to 3-91. Final report received 12-91 (due date 1-91). Agreement closed.
91	MP-10	Siskiyou RCD	Scott River subbasin	Inventory riparian zone of valley reach of Scott River mainstem.	7084	Project objectives: 1) to survey existing riparian conditions in the valley reach of the Scott River, 2) survey landowners for willingness to improve riparian conditions. (Applies to LRP policy 3.7) Findings: Approximately 29.6 miles of the Scott River riparian cor ridor within the Scott Valley were surveyed. 373 sites were identified as needing improvement. Primary actions recommended to alleviate problems include livestock exclusion fencing, riparian planting, rip-rap placement on streambanks. Project objectives met. Agreement history: Agreement was modified once to redistribute funds among existing budget line items and to extend termination date from 12-01-91 to 9-30-92 in order to complete the final report. Final report received 7-22-92 (originally due 12-91).
89	2.41	USFS Klamath National Forest	Middle Klamath subbasin	Habitat type and standing crop estimate on 126 miles of middle Klamath streams.	78000	Project objectives: 1) to assess quantity and quality of juvenile rearing and adult holding habitat during base flow conditions for 126 miles of stream (11 different middle Klamath streams), 2) to determine habitat preference during the 1988 and 1989 field seasons. (Applies to LRP policies 3.2, 3.12, 3.13) Findings: Cooperator's survey crews evaluated over 2.4 million m2 of rearing habitat during 1988/89 field season. Water quality and quantity conditions reach critical or lethal levels in Shasta and Scott Rivers, Yreka, Shackleford/Mill and Indian Creeks. Rearing habitat generally lacked large woody debris. Spawning habitat not thought to be limiting production in the study area. Recommendations include riparian revegetation, providing large woody debris structures, and streambank stabilization in select areas. Project objectives met. Agreement history: Agreement modified once to extend term of agreement by one month. Final report received 7-01-90 (due 2-01-90). Agreement closed.
89	4.2	[redacted] Klamath [redacted]al Forest	Klamath Basin	Evaluate existing habitat	[redacted]	Project objectives: to evaluate 10 different habitat modification techniques to determine which most effectively restored salmonid spawning [redacted]ring

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				improvements.		conditions. (Applies to LRP policy 3.18, 3.19) Findings: The modified Binson method was used to classify habitats resulting from instream habitat modification structures. Cabled cover logs and digger logs were found to be the most cost efficient habitat enhancement structures of those studied. Boulder weirs were the most expensive and least cost efficient. High steelhead spawner use was associated with boulder groups with wood and boulder/rootwad groups. Overhead cover was also found to be an important criterion for juvenile salmonid use when placed in highly preferred rearing habitat types. Project objectives met. Agreement history: Agreement modified once to extend term of agreement by one month. Final report received 7-27-90 (due 2-01-90). Agreement closed.
90	2.41	USFS Klamath National Forest	Salmon River subbasin	Habitat produotivity survey	46247	See comments for project 89-2.41. (Page 18) Continuation of efforts. Final report received 3-23-93. (Due 2-01-91.)
91	HP- 7	USFS Klamath National Forest	Salmon River subbasin	Conduct watershed improvement needs inventory (WINI) on South Fork Salmon River.	18500	Project objective: to survey the upper South Fork Salmon River and develop a Watershed Improvement Needs Inventory. (Applies to LRP policy 3.8) Findings: The inventory revealed 183 riparian miles along stream courses in the watershed. Of the 92 miles of perennial stream reaches identified, 10 miles were determined to be in excellent condition, 69 miles "good", 20 miles "fair", and 3 miles "poor." Many recommendations are made to improve conditions at various sites. Project objective met. Agreement history: Final agreement received 1-92 (due 9-91).
91	HP- 9	USFS Klamath National Forest	Salmon River Subbasin	Analyze sediment delivery.	38190	Project objective: to develop a preliminary sediment budget for the Salmon River subbasin. (Applies to LRP policy 3.8) Findings: Final report not received yet. Not able to assess the study. Project objective not met. Agreement history: Final report due 9-91.
93	HP- 2	USFS Klamath National Forest	Middle Klamath subbasin	Coarse Woody Debris Survey of Mid-Klamath tributaries.	4600	Project objective: to survey woody debris in W. Fk. Clear, upper Clear, Rainy Valley, upper Elk, and upper Dillon Creeks. (Applies to LRP policy 3.13) Findings: Project not scheduled for implementation until summer '93. Agreement history: Interagency agreement not finalized yet. Awaiting information form cooperator of a higher ranking project. Final budget will impact this interagency agreement funding.
89	2.44	USFWS Coastal California FRO	Lower Klamath subbasin	Habitat available for fall chinook in Blue Creek.	0	See comments for project 89-2.33 (Page 8)
** Subtotal **					815635	
** Category: Habitat Restoration						
89	4.15	City of Yreka	Shasta River subbasin	Control bank erosion in Yreka Creek, a tributary to the Shasta River.	10000	Project objective: to control streambank erosion on Yreka Creek. (Applies to LRP policy 3.2) Findings: 600 feet of streambank were protected by use of willow mat bank stabilization structures and with willow plantings. Erosion significantly

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FY	PROJECT NUMBER	COOPERATOR	SUBBASIN/PLAN AREA	PROJECT DESCRIPTION	COST	COMMENT
						reduced, exposing gravels for steelhead spawning. Project objectives met. Agreement history: Final report received ahead of schedule. 5-90. Agreement closed.
93	HR-33	Great Northern Corporation	Shasta River subbasin	Parker riparian fence construction.	41458	Project objective: to promote recovery of the riparian corridor along the Shasta River by installing approximately 7,900 feet of 5-strand barbed wire cattle exclusion fencing. (Applies to LRP policy 3.8) Findings: None. Project not implemented yet. Agreement history: Project to be completed by 9-94.
93	HR-34	Great Northern Corporation	Shasta River subbasin	Volunteer support package.	0	Project objective: to provide material and hand tools for use by volunteer groups involved with riparian fencing/planting projects in the Shasta Valley. (Applies to LRP policy 3.8) Findings: None reported. Tools and equipment not purchased yet. Project objective not met. Agreement history: Funded with FY1992 funds, amended FY92 agreement with Great Northern Corporation to facilitate this agreement.
91	HR-65	Hoopa Valley Tribe	Lower Klamath subbasin	Control or prevent erosion of sediment into Pine Creek.	61811	Project objectives: 1) to implement Phase III of the Pine Creek model watershed restoration project, 2) to reduce erosion and sediment yield in Pine Creek. (Applies to LRP policy 3.9) Findings: Work in progress. Cannot assess whether project objectives have been met, no final report received. Agreement history: Agreement modified twice; once to extend the termination date from 01-92 to 09-92, and once to modify the budget to allow payment for consultant/contractor expenses. Final report not received (due 09-30-92).
92	HR-24	NCIDC	Lower Klamath subbasin	Migration barrier removal on Tarup Creek.	10192	Project objectives: 1) to improve adult access at mouth of Tarup Creek, 2) to evaluate effectiveness of project. (Applies to LRP policy 3.10) Findings: None reported. Project to be implemented in summer, 1993. Riparian restoration plan required, pursuant to U.S. Army Corps of Engineers Permit, prior to implementation of project. Project objectives not met yet. Agreement history: Agreement modified once to extend milestone dates by 12 months. Notified cooperator that riparian restoration plan is required.
92	HR-17	Shasta RCD	Shasta River subbasin	Easton bank protection and riparian fencing.	7191	Project objective: to improve riparian conditions along the Shasta River by constructing cattle exclusion fence along approximately 1,280 lineal feet of streambank. (Applies to LRP policy 3.10) Findings: Project not implemented yet. Project objective not met yet. Agreement history: Agreement modified to allow 5-strand barbed wire fencing materials and to utilize willow mats for bank stabilization, and to extend project initiation date. Project scheduled for completion 5-93.
91	HR-112	USFS Klamath National Forest	Salmon River subbasin	Provide native plants to reseed riparian zones in portions of N and S	19957	Project objective: to collect native seeds along the Salmon River riparian corridor, germinate in nursery and provide for plu[illegible]ng (under a different agreement). (Applies to LRP policy 3.8, 3.13) Findings: Project field work complete, but final report not [illegible] yet.

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				Forks.		Project objective not met, no assessment possible. Agreement history: Final report originally due 9-92.
93	MR-38	USFS Klamath National Forest	Salmon River subbasin	Native seed collection - Salmon River Drainage.	4544	Project objective: to collect native riparian vegetation seeds for germination and growth to seedlings. (Applies to LRP policy 3.13) Findings: None reported. Project to be implemented in 1993. No assessment of project objectives. Agreement history: Interagency agreement not finalized. Awaiting information from other cooperator.
** Subtotal **					149151	
** Category: Program Administration						
89	0.2	USFWS	Klamath Basin	Regional Office Overhead.	80000	Project objective: To administer the Klamath River Fishery Restoration Program and participate on two Federal advisory committees: the Klamath River Basin Fisheries Task Force and the Klamath Fishery Management Council. Findings: Project objective met.
90	0.2	USFWS	Klamath Basin	Regional Office Overhead	93000	Project objective: See comment for project 89-0.2. Findings: Project objective met.
89	0.1	USFWS Klamath River FRO	Klamath Basin	Operate Klamath River Fishery Resource Office.	188760	Project objectives: 1) to provide administrative support for the Klamath River Fishery Restoration Program, 2) to provide public information services, 3) to provide technical support and evaluation of the Restoration Program. (Applies to LRP objective 7) Findings: Project objective met.
90	0.1	USFWS Klamath River FRO	Klamath Basin	Operate Klamath River Fishery Resource Office	240817	See comments for project 89-0.1.
91	PA- 3	USFWS Klamath River FRO	Klamath Basin	Operation of Klamath Fishery Resource Office.	262000	See comment for project 89-0.1.
91	PA- 4	USFWS Klamath River FRO	Klamath Basin	USFWS Regional Office overhead.	80000	See comment for project 89-0.2.
92	PA- 4	USFWS Klamath River FRO	Klamath Basin	Administer contracts and cooperative agreements to implement restoration program	145000	See comment for project 90-0.1.
93	PA- 1	USFWS Klamath River	Klamath Basin	Administer contracts	149500	See comment for project 90-0.1.

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	FRO		and cooperative agreements to implement restoration program		
** Subtotal **				1189077	
** Category: Program Coordination					
92 PA- 6	Great Northern Corporation	Shasta River subbasin	Shasta River CRMP Field Projects Coordinator.	56791	Project objectives: to provide funds for project coordinator for implementing habitat restoration work in the Shasta Valley (for the Shasta Valley CRMP) in FY1992 and FY1993. (Applies to LRP policies 3.2 and 3.6) Findings: Riparian areas of the Shasta surveyed, landowners contacted, resulting in about a dozen riparian restoration project proposals being developed by the cooperator or local conservation group (Great Northern Corporation), and funded by CDFG or by USFWS. Project objectives partially met for FY1992. Implementing FY1993 project now. Agreement history: Agreement modified to fund the FY1993 project (identical to FY1992 project) with FY1992 funds. Final report not received. (due 2-28-93).
93 PC- 6	Great Northern Corporation	Shasta River subbasin	Shasta River CRMP Field Projects Coordinator.	0	See comment for project 92-PA-6.
93 PC- 3	Klamath Forest Alliance - SRCC	Salmon River subbasin	Develop and implement Salmon River Community Restoration Program.	9878	Project objective: Develop Salmon River Community Cooperative Resource Restoration Program Plan/s and implement short term restoration measures by training volunteers to do restoration work in the Salmon River sub-basin. Meets LRP policy 3.1. ("...solicit the support of citizens... Hold training sessions on restoration techniques. Encourage the formation of local restoration groups to "adopt" sub-basins and become advocates for fisheries...") Findings: None reported yet. Agreement history: Tasks identified in agreement were underway in a timely manner. Local coordinator works well with local people. Agency and tribal expertise provides technical support. Excellent cost:benefit.
92 PA- 5	Shasta Valley RCD	Shasta River subbasin	Operating expenses for Shasta Valley CRMP to coordinate restoration work.	2090	Project objective: to provide funding for administrative activities of the Shasta Valley CRMP. (Applies to LRP policy 3.2 and 3.6). Findings: Money being used for postage and office supplies. Agreement history: Modified agreement to extend termination date from 12-31-92 to 12-31-93.
93 PC- 1	Siskiyou RCD	Scott River subbasin	Scott Valley Coordinated Resource Management Plan.	24124	Project objectives: 1) to foster development of, and implementation of, watershed restoration and education projects, 2) to support the Scott River Watershed CRMP process by providing funding for staffing and administrative needs. (Applies to LRP policies 3.7, 7.9) Findings: Program manager hired to publicize CRMP activities, [redacted] meeting minutes, administer program. Manager has developed a pos[redacted]cription

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						for the Projects Coordinator position. Will hire soon. Agreement history: Agreement signed 3-93.
92	PA- 1	Technical Work Group	Klamath Basin	Three year action plan	0	Project objective: to develop a 3-year action plan. (Applies to LRP policy 7.10) Findings: No activity. Agreement history: No funds used. FY1992 funds were never obligated.
92	PA- 4	USFWS Klamath River FRO	Klamath Basin	Logistical support for advisory committees, coord. of restoration activities.	260000	Project objective: to provide logistical support for two advisory committees: the Klamath River Basin Fisheries Task Force and the Klamath Fishery Management Council. (Applies to LRP objective 7) Findings: Includes personnel and travel costs for staff, and travel costs for agency advisory committee members, and logistical costs for advisory committee meetings. Project objectives met.
93	PC- 9	USFWS Klamath River FRO	Klamath Basin	Logistical support for advisory committees, coord. of restoration activities.	272300	See comments for project 91-PA-4. (Page 21)
93	PC- 2	USFWS Klamath River FRO	Klamath Basin	Technical/operational support for watershed-based restoration planning.	16000	Project objective: to provide additional funding to support for watershed-based planning efforts. Findings: Funding not utilized, to date.
** Subtotal **					841190	
** Category: Program Planning						
89	1.1	Kier Associates	Klamath Basin	Develop long range plan and environmental assessment.	140138	Project objective: to develop a long range plan for the Klamath River Basin Fishery Restoration Program. Findings: Project objective met. Contract history: Long range plan completed and distributed 1-91. Contract closed.
90	1.1	Kier Associates	Klamath Basin	Amend long range plan to include Upper Klamath subbasin issues.	30149	Project objective: to develop a draft planning document that includes discussion of issues and policies pertinent to the upper Klamath River Basin. (Applies to LRP policy 7.4) Findings: Scoping effort revealed the need to address water quality and quantity issues in the upper basin, that influence the restoration of anadromous fish populations. Project objective met. Contract history: Contract closed.
** Subtotal **					170287	

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*** Total ***					5007027

DRAFT

RESULTS OF A REVIEW OF SALMON AND STEELHEAD HATCHERY PRODUCTION IN THE KLAMATH RIVER SYSTEM

Background and Process

During the summer of 1992, the chairpersons of the Klamath River Basin Fisheries Task Force, the Klamath Fisheries Management Council, and the Trinity River Basin Fish and Wildlife Task Force, collectively known as the "Three Chairs", requested a review of California salmon and steelhead hatchery production in the Klamath River system. The requests resulted from concerns over issues related to hatchery production that were expressed by committee members and other interested parties. Two major concerns were expressed:

1. Potential competition between hatchery and naturally produced juvenile fish for limited rearing habitat in the river system may depress the survival of naturally produced salmon or steelhead;

2. Genetic variability throughout the system may be decreasing because of the perceived overwhelming influence of a large population of hatchery fish that could have significantly less genetic variability than the naturally reproducing stocks.

In light of these concerns, the Three Chairs requested a review of production at Iron Gate and Trinity River hatcheries, which are operated by the Department of Fish and Game (Department), and appointed representatives from each of the three advisory groups as participants on a hatchery production Review Team. Appointed advisory group team members included representatives from the United States Fish and Wildlife Service, the United States Bureau of Reclamation, Humboldt State University, the Hoopa Valley Tribal Council, California's commercial salmon fishing industry, and the Oregon Department of Fish and Wildlife. A complete listing of participants appears as an appendix to this report. The Department responded positively to the request for a review of hatchery production, establishing the Review Team as a forum for potential development of new ideas useful in the periodic review and revision of the operating goals and constraints for its salmon and steelhead hatcheries in the Klamath/Trinity system. The Department review had commenced approximately one year earlier, but it was essentially restarted with the advent of the Review Team.

The team first convened in November, 1992, in Redding. At that meeting, all of the major concerns and corollaries of these concerns were discussed in a general manner. The advisory nature of the Review Team was highlighted amidst the legal mandates and policies under which the Department must operate its anadromous hatcheries. The meeting adjourned following a call by the Department for participants to provide specific written comments on hatchery production issues by December 10. The group agreed to meet again in January, 1993 to allow the Department to respond to any comments it had received.

The second meeting was held on January 13, 1993, also in Redding. Where possible, the Department provided written responses to comments received by the due date, and the group discussed the responses. In addition, several specific findings were made regarding hatchery production in the Klamath and Trinity basins. The Department stated that it would prepare a progress report that detailed the findings of the Review Team at the March, 1993 meeting of the Klamath River Basin Fisheries Task Force. A final report was to have been presented by the Department at the May, 1993 meeting of the Klamath River Basin Fisheries Task Force. The report presentation sequence was subsequently changed to the March, 1993 meeting of the Task force and the next Three Chairs meeting, respectively, for the two reports.

Production Goals and Constraints

Production at each of California's salmon and steelhead hatcheries is governed by a formal set of written production goals and constraints for that hatchery. These documents state the target number of eggs that is to be taken for each species and stock reared at the hatchery, how many fish are to be reared, and sizes, times, and locations of release. The documents further provide that eggs will be taken throughout spawning runs and that any excess early eggs taken will be destroyed or used for other programs. Exceptions to the stated criteria require the written approval of the appropriate Regional Manager and the Chief of Inland Fisheries Division. Copies of the current documents for Iron Gate and Trinity River hatcheries are appended to this report.

California adopted the working policy of having a set of formal production goals and constraints for its salmon and steelhead hatcheries to ensure that these hatcheries produce fish in numbers sufficient to meet mitigation goals and make the best use of hatchery space without adversely affecting salmon and steelhead spawning naturally in the remaining habitat. These criteria minimize the potential for significantly lessened genetic variability in hatchery products, when compared to naturally spawned stocks, and reduce the likelihood for in-

hatchery genetic mixing of unique, naturally spawning stocks. Release sizes and timing take into account the best information available on survival to adulthood and interactions that may occur between hatchery fish and their naturally spawned counterparts.

Salmon and steelhead hatchery goals and constraints are reviewed periodically and revised as new information becomes available or as conditions in the environment change. Revisions take into account the knowledge and suggestions of hatchery managers and inland and ocean fishery managers. They also are strongly influenced by the Department's obligations to meet mitigation goals and to provide fishing opportunities to sport and commercial fishers. Proposed changes to production goals and constraints are adopted following thorough review and written approval by the appropriate Regional Manager and the Chief of Inland Fisheries Division. California began its most current updating of production goals and constraints for its salmon and steelhead hatcheries approximately one year ago, making the current review timely.

Specific Issues Raised by the Review Team

This section deals with specific issues that were discussed by team members during the review. Although the subjects generally fell into the two broader categories listed in the Introduction, the intent here is to summarize the points that were brought up by team members.

Competition Between Hatchery and Naturally Spawned Fish

Discussion on this subject centered primarily on the time, hence size, at which fish are released. Some team members strongly supported confining hatchery releases of chinook salmon to the fall, as yearlings, in both the Klamath and Trinity rivers. They suggested this approach because of the belief that yearling hatchery fish, unlike advanced fingerlings, move downstream relatively quickly and are less likely to residualize and compete for food and cover with naturally spawned fish rearing in the river. Further, they contended that they believed that the majority of naturally spawned fish have migrated from the river system by fall.

Another argument offered by some team members in support of yearling releases was their contention that some fish released from the hatchery in the spring as smolts may remain in the estuary longer than fish released as yearlings. They felt that during the period of estuarine residency, these fish become susceptible to mortality factors related to competition for food and space in suitable habitat. Their feeling was that yearling

releases resulted in hatchery fish reaching the estuary coincident with their natural time of movement into the ocean, thus avoiding the period of residualization.

Production of coho salmon at Trinity River Hatchery was questioned by some team members. These members wondered why there was mitigation for a species that they thought may not have occurred historically in areas upstream from the site of Trinity Dam. They felt that production of this species resulted in needless competition with fish that were naturally produced farther down stream. Some also suggested that if coho were not reared, more space would be available at the hatchery for rearing additional chinook yearlings.

The team agreed that mitigation for steelhead was not achieving its goals in the Trinity River. The group did not, however, conclude that hatchery production was the reason for this. Rather, they agreed that a basin-wide investigation, geared to determining specific actions needed for increasing steelhead numbers, should be implemented by the Department. The study would include consideration of hatchery production, as well as habitat factors potentially in need of modification in restoring Trinity River steelhead.

For all species, the team expressed concern over disposition of excess eggs by hatcheries. Excess egg take occurs because the exact magnitude and duration of a spawning run and the conversion from egg to fry in a hatchery are difficult to predict each year. Therefore, a disproportionate number of eggs may be taken earlier in the season to insure against a shortfall in the total egg take, if the run proves to be smaller than expected. Further, a total surplus of eggs is taken in case the hatchery experiences catastrophic egg or fry mortality. The team members were concerned regarding the disposition of excess eggs. They considered the offspring from them as potential competitors for food and cover with naturally spawned fish. They were also concerned with genetic considerations (addressed in the next section of this report).

Team members were also concerned over the disposition of "grade-outs". After eggs are hatched and the juveniles are moved to outside raceways, they are periodically graded for size and thinned as necessary to maintain optimum numbers of fish for the hatchery's capacity. The number of fish during a season that is thinned, the "grade-outs", can be significant. Review Team members expressed concern that releasing these fish into the river causes unnecessary competition with naturally spawned fish, and possible reduction in genetic variability of the stocks.

Genetic Effects of Hatchery Production

This subject received less direct discussion than the subject of competition, although it was recognized by the team that all of the items discussed under competition also had implications for the genetic makeup of salmon and steelhead stocks in the Klamath and Trinity systems. For example, some team members believed that failure to destroy or otherwise prevent entry into anadromous waters of the offspring from excess eggs taken during any part of a spawning run may result in production of a hatchery product that mirrors natural genetic variability less than it could. Likewise, they believed that releasing hatchery fish at times when they are likely to compete with naturally spawned fish for limited available habitat also can decrease overall genetic variability of the stocks, if the hatchery stock lacks the genetic variability of natural spawners, and if the hatchery offspring are successful and displace their naturally spawned counterparts.

The team members made it known that they believed rearing enhancement fish was inappropriate at either of the hatcheries, since they believed hatchery production should be limited to replacing natural production from habitat now lost because of dams. They considered rearing more than the number of fish called for under mitigation agreements a practice that had the potential to lessen the genetic variability of salmon and steelhead populations in the river system, because they believed that hatchery products would genetically overwhelm natural spawners. They also were concerned over potential increases in competition for habitat between hatchery and naturally produced fish.

The question of why coho rearing was part of the Trinity River mitigation agreement was asked in the contexts of both genetics and competition. Some of the team members felt that coho should not be reared unless it could be demonstrated that they had occurred above the dam site prior to construction, since, if not, rearing them was an enhancement activity and had the potential to decrease the genetic variability of naturally spawning coho in the Trinity River.

Another question raised by the team from the perspective of genetic influences caused by hatcheries was why the mitigation agreement governing Trinity River Hatchery operations called for production at a level to result in 9,000 chinook adults returning to the hatchery each year. It was suggested that this number was unrealistically high, given that it took into account not only the actual number of actual spawners that occurred upstream from the dam site, but added to this figure expected losses that, prior to dam construction, had been caused by sport fishing.

Since sport fishing ceased following dam construction, the contention was that the number of adults returning to the hatchery called for in the agreement should be lowered. The feeling was that these "extra" spawners, which they assumed were of hatchery origin, would spawn naturally, reducing the overall genetic variability of Trinity River chinook salmon.

A final concern expressed by the team was over potential mixing of spring-run and fall-run chinook at Trinity River Hatchery. There was fear that this practice could cause the two stocks to lose their unique genetic characteristics.

Other Subjects Raised and Discussed

The team briefly discussed interim cooperative rearing projects. These projects were intended to be temporary and to provide a means for accelerating restocking of streams that had benefitted from habitat restoration work. Following reestablishment of naturally reproducing stocks, the interim projects would have terminated. Most of these projects had been located in the Klamath River system, although the Hoopa Valley Tribal Council has operated a project on the Trinity River for several years. The Department explained that a 50 percent decrease in funds had curtailed most of the programs on the Klamath system, and that rearing efforts outside the hatchery in that system are now confined to the Fall Creek facility on the upper river. Reference was made to interest by the United States Forest Service in pursuing the Hoopa Valley Tribal Council's interim rearing program as a means for restoring naturally reproducing populations in the Trinity River.

Although the team's purpose was to discuss hatchery production, other subjects, more related to hatchery operations, arose and were discussed. In that operations can affect production, some of the discussion items are briefly presented here for information.

Stocking density of fish in hatchery raceways was discussed. Some team members suggested that the facilities are not used optimally and that fish could be stocked less densely in the hatcheries. The Department responded that unused hatchery space is more a reflection of depressed runs than of lack of efficiency, but was open to considering any new information that was available pertinent to in-hatchery stocking rates.

Water quality and availability were discussed for each of the hatcheries in terms of how they affected hatchery production. Recent modernization at Trinity River Hatchery and plumbing modifications at the Lewiston Reservoir outlet appear to have solved many of the water quality and quantity problems at Trinity

River Hatchery. Iron Gate Hatchery experiences a chronic problem with solids in its water supplies. These solids settle in incubator trays and may lead to egg losses caused by fungus. Tests at the hatchery have indicated a 15 percent increase in egg survival in incubators supplied with filtered water. Pacific Power and Light Company is working with us to determine if the problem can best be solved with installation of a filtration system or through installation of equipment for pumping ground water through the incubators. Additionally, water availability and raceway fish holding capacity presently constrain expansion of the yearling chinook salmon rearing program at Iron Gate Hatchery.

Disease and survival of fish in the hatcheries were also discussed. As a result of these discussions, the US Fish and Wildlife Service provided disease control reports to hatchery staff.

Department Responses to Concerns

In this section we present the responses of the Department to the major concerns raised by the team members.

The Department believes that, given current mitigation requirements, water availability, and physical holding space in the hatcheries, it is operating these hatcheries in the manner likely to cause the least competition between hatchery and naturally spawned fish. Further, we believe that under current practices our hatchery fish are unlikely to significantly lessen the genetic variability of salmon and steelhead in the Klamath and Trinity rivers.

Strong feelings were expressed that the Department should convert entirely to a yearling program for chinook salmon. Our hatcheries do not have the capacity to hold enough yearling chinook salmon to meet mitigation requirements for all races, nor are we convinced that an exclusively yearling program is desirable. Management decisions by the Klamath Fisheries Management Council and the Pacific Fishery Management Council are based on smolt releases. While we are committed to emphasizing natural production and to conserving wild stocks where they exist, we are also obligated to manage our fisheries to provide opportunities for sport and commercial fishers. Restricting hatchery production to only yearling releases could significantly reduce the size and number of fish available in the ocean.

Unless new information becomes available to us demonstrating conclusively that smolt releases in late May and June have significant detrimental effects on naturally spawning populations, we will continue to release chinook advanced

fingerlings (not parr) as well as yearlings, . This year, our Natural Stocks Assessment Project plans to begin a pilot study that will address time of entry and period of residency in the estuary for hatchery and naturally produced salmonids.

Our smolt program is based on several considerations. Ocean fishery management decisions are based on smolt releases. In addition, smolt emigration is a natural occurrence for chinook salmon in the Klamath and Trinity systems. Finally, yearling releases tend to result in increased returns of grilse and produce smaller adults, reducing opportunities for ocean fishers.

We are exploring the potential for increased yearling production at Iron Gate Hatchery. We are exploring the questions of adequate water supply and funding. We understand that water flow and quality in the Klamath River are largely dependent on how much water remains in the river following diversions for agricultural and other uses outside California and on how much cold water is stored in the depths of Iron Gate Reservoir. In light of this, we are prepared to negotiate for conversion of some of our advanced fingerling production at Iron Gate Hatchery to a corresponding level of yearling production, provided that water of acceptable quality and in sufficient quantity is made available.

The Department believes that mitigation for coho salmon at Trinity River Hatchery is appropriate. Trapping records show that this species occurred above the present dam site. The team was provided references on this issue.

The Department does not consider the figure of 9,000 chinook salmon adults returning to Trinity River Hatchery excessive. We do not believe that these adults have a detrimental genetic effect on Trinity River chinook salmon stocks. We contend that there must always be adults returning to the hatchery site in excess of the number required for egg collection when the hatchery is functioning properly.

We concur with the team findings regarding Trinity River steelhead. A goal-oriented investigation is badly needed to find ways to meet mitigation goals and restore this valuable resource.

The Department shares the concerns of the Review Team over disposition of excess eggs and grade-outs. Our goal has been and continues to be to take eggs throughout each run, with the take being in proportion to the magnitude and duration of the run. Our policy, stated in the goals and constraints documents, is to destroy excess eggs or fry or to use them for other, nonadromous

programs.

We concur with the team that use of the term "enhancement" to describe part of the production at the two hatcheries is inappropriate. The use of the term is inaccurate and the fish described by it are correctly considered part of the production needed to meet mitigation requirements. "Enhancement" will be used only when referring to production in excess of mitigation requirements. For Iron Gate and Trinity River hatcheries, this means that it will not be used, since the Department has no plans for production except that necessary for prescribed mitigation.

The Department supports interim artificial propagation programs where appropriate. These temporary programs under our jurisdiction must operate in accordance with State regulations and guidelines and must be confined to areas where natural production is insufficient to fully utilize available habitat. Proposals for initiation of new projects or continuance of existing projects must undergo a formal review process and be approved by the Department prior to implementation. The review procedures of the Trinity River Basin Fish and Wildlife Task Force follow its 1991 Policy and Procedures for Use of Interim Artificial Propagation Under the Trinity River Restoration Program to Accelerate the Restoration of the Anadromous Salmonid Fish in the Trinity River Basin for proposed projects in the Trinity system. Although it incorporates California's laws, policies, and guidelines pertinent to interim rearing, projects approved under it are still subject to State approval and permitting requirements.

Our greatest genetic concern for salmon and steelhead is mixing fish from different stocks. Our statewide policy prohibits artificial movement of stocks between basins without the written approval of the appropriate Regional Manager, the Chief of Inland Fisheries Division, and the Deputy Director for fisheries. Such movements and mixing are discouraged. Our hatchery personnel take great care to ensure that stocks are not mixed during hatchery operations. Genetic mixing of hatchery and naturally reproducing components of a stock is of less concern to us than is interbasin or other mixing between different stocks.

We believe that, provided there is no interbasin or interstock mixing, the potential for losing genetic variability because of hatchery production is not significant for mixed-component stocks, which have a hatchery and a naturally reproducing component, under our current anadromous hatchery practices.

First, except in the cases of the endangered Sacramento River winter-run chinook salmon and the Carmel River steelhead, anadromous hatcheries in California, unlike trout hatcheries, do

not maintain breeding stocks of adults. Because egg donors are randomly selected at the hatchery, genetic drift is not as likely to occur as it is in situations in which a small broodstock is cultured or maintained from year to year. Each year, anadromous hatcheries capture and spawn an essentially random subset in most years of the entire population that has successfully entered the hatchery. It could be argued that this subset has less genetic variability than the whole population, but we contend that this is unlikely. If the hatchery spawners are taken randomly from throughout a run and in proportion to its magnitude, then it is more likely that the hatchery adult spawning population will generally reflect the genetic variability of the portion of the spawning population that would have spawned at or above the hatchery site.

Second, the offspring of the hatchery-spawned adults are released into the natural environment where they become susceptible, like their naturally spawned cousins, to predation, competition, and all of the other limiting factors that are present in that environment, both in fresh and salt water. These limiting factors take their toll, and individuals lacking the genetic makeup necessary for survival usually die before reaching adulthood. This tends to remove, or cause to occur at low frequencies, any "undesirable" genes that may have been present at increased frequency in the hatchery population when it was released. This natural culling process may be reduced, however, by trucking the hatchery product to the estuary, which also increases straying of returning adults.

Finally, the adult survivors produced at the hatchery and those produced naturally return to spawn. Some of the hatchery fish spawn naturally with other hatchery fish, but some spawn with naturally produced fish. When the hatchery captures its adults, some of them are hatchery products, but others are products of natural spawning. What this means is that there is a two-way exchange of genetic material between the hatchery component and the naturally produced component. This, in conjunction with the effects on survival of the natural environment, works against selection in the population as a whole for genes that might initially appear at increased frequency in groups of hatchery fish when they are released. Therefore, the genetic diversity of the stock remains intact.

Under an ideal situation, we would operate hatcheries so that hatchery fish would leave the hatchery site at the same times, the same sizes, and in the same numbers that preproject naturally produced fish would have passed the site on their seaward migration. This would more closely mimic preexisting natural conditions. We recognize that this would be unrealistic under current budget and hatchery size constraints and that flow

regimes have been altered by the projects for which mitigation fish are produced. We will continue to evaluate our hatchery operations and production and improve them as new technology and methodology becomes available. However, we believe our anadromous hatcheries are being operated to approximate natural conditions to the extent possible.

In summary, we conclude this section with the observation that hatcheries are a necessary part of California's salmon and steelhead conservation program. They exist to produce fish to replace natural production that was lost in areas above dams. We consider unreasonable the assumption that full preproject production levels can be met in the absence of hatcheries. No amount of habitat restoration down stream can replace the habitat that has been forever lost upstream to dams. The Department recognizes that hatcheries must be operated in a manner that has the least affect on naturally spawning stocks. The Department will do all that it can to insure against harming natural stocks, while meeting mitigation goals and providing reasonable opportunities to sport and commercial fishers.

Findings and Actions Planned by the Department

The Department plans to undertake the following six actions related to future production at Iron Gate and Trinity River hatcheries:

1. Fall chinook salmon egg take at Iron Gate Hatchery will be reduced to 12 million per year. This will be incorporated into the goals and constraints for Iron Gate Hatchery. The 18 million egg figure is excessive and was derived at a time when the Department believed that maximum hatchery production was a desirable goal. In reality, this goal has not been reached in most years;

2. The production goals and constraints for the two hatcheries, which are currently undergoing revision will not refer to "enhancement" fish, but will refer to all production as mitigation fish;

3. The revised goals and constraints will specify that no pre-smolts will be planted, and that excess eggs or fry will be destroyed or used for purposes other than release into anadromous waters;

4. We will seek funding from the Trinity River Basin Fish and Wildlife Task Force or the US Bureau of Reclamation for a study to develop a program for steelhead population restoration. The study will emphasize the need for management to assure that steelhead mitigation goals can be

met;

5. We will request Pacific Power and Light Company to review potential water supplies from Copco Lake, Iron Gate Reservoir, Fall Creek, and groundwater sources to determine if adequate water of proper quality exists that could be provided for an expanded yearling program at Iron Gate Hatchery. The utility company is cooperating with us in solving the incubator water quality problem. They will install a filtration system or ground water pumping equipment at the hatchery to provide adequate water quality to hatchery incubators;

6. We will continue to release our hatchery production at times and under conditions that most closely approximate natural patterns while minimizing competition with naturally produced fish. Smolt releases will take place as late in spring as possible to avoid competition with naturally spawned fish, yet ensure that hatchery fish avoid mortality from high river water temperatures. Trucking of hatchery fish will be considered only under extreme emergency conditions when release at the hatchery site would result in greater than 50 percent planting mortality.

Acknowledgements

We thank each of the participants on the Review Team. We believe that it is always beneficial for Department and other government programs to be reviewed periodically by interested and concerned citizens and agencies. The assistance of the Department's Mr. John Hayes, Senior Fishery Biologist, Region 1 and Mr. Robert Corn, Senior Hatchery Supervisor, Region 1, and his staff, Mr. Curt Heiser, Manager of Iron Gate Hatchery, and Mr. Gary Ramsden, Manager of Trinity River Hatchery, was invaluable and very much appreciated.

ATTACHMENT

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Iron Gate and Trinity River Hatcheries Review

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State of California

Memorandum

RECEIVED
AUG 17 1988

The Resources Agency

To : Bob Fletcher, Deputy Director
Inland Fisheries Division

Date : AUG 06 1988

From : Department of Fish and Game

Subject: Anadromous Fish Hatchery Production Goals and Constraints

Attached for your approval are hatchery goals and constraints for Iron Gate and Mad River hatcheries. They have been cooperatively developed by the staffs of Region 1 and Inland Fisheries Division.

If you have questions regarding this issue please contact Forrest Reynolds in Inland Fisheries Division. His telephone number is (916) 373-7323.

A. E. Naylor
Regional Manager

COPY Original signed by Robert R. Rawstron

Robert Rawstron
Chief, Inland Fisheries Division

Approved: COPY Original signed by Robert C. Hight
Deputy Director

Date: AUG 15 1988

cc: Pete Bontadelli, Bob Rawstron, John Hayes, Curt Hiser, Bob Fletcher, Ken Hashagen, Bob Corn, Phil Baker, Tim Farley, Forrest Reynolds, Bruce Barngrover

IRON GATE HATCHERY

Production Goals and Constraints

CHINOOK

Mitigation - (Pacific Power)

A. Take all eggs available up to incubator capacity (18,000,000). Eggs taken shall be distributed throughout the season. No excess eggs shall be retained and any excess adults trapped shall be marked and returned to the river unspawned, except that those salmon bearing adipose (Ad) fin clips (indicating the presence of coded-wire tags) shall be retained to permit recovery of the tags.

B. From these 18,000,000 eggs, rear and plant 6,000,000 smolts (attempt to meet 90 per pound guidelines) prior to May 31. When downstream water conditions are compatible, the release may be delayed as late as June 15 to allow release of larger smolts.

C. Retain 1,400,000 fish for the approved enhancement programs listed below.

D. All fish excess to hatchery mitigation requirements, or approved on-site enhancement and Klamath ponds enhancement needs will be carried as long as compatible with A, B, and C above and then released at Iron Gate Hatchery site prior to April 15.

ENHANCEMENT - (Department of Fish and Game)

A. Yearling Program

1. About 900,000 will be reared at Iron Gate and released at the Hatchery site.

2. About 180,000 will be reared under contract at the Fall Creek Ponds and released at the Iron Gate Hatchery site.

3. Up to 300,000 will be reared in Klamath River Rearing Ponds and, except for Camp Creek, the yearlings will be released at the rearing site.

STEELHEAD

A. Mitigation

1. Take 1,000,000 eggs. All excess adults shall be marked and returned to the river unspawned. Egg take shall be distributed throughout the season.

2. From these we will grade out 250,000 large fingerlings by September 1, to rear 200,000 yearlings.

3. The small fish from the grading will be planted in Iron Gate Reservoir ~~if approved~~ by Pathology. These shall be marked with a RP or LP fin clip on alternating year classes for evaluation in the reservoir.

COHO

A. Mitigation

1. Take 500,000 eggs distributed throughout the run, and from these rear 75,000 yearlings for planting at the Hatchery site (soft shell problems necessitates the large number of eggs). Adults returning to the hatchery that are excess to those needed to obtain the 500,000-egg target will be marked and returned to the river unspawned, except that those salmon bearing Ad fin clips (indicating the presence of coded-wire tags) shall be retained to permit recovery of the tags.

B. Enhancement

1. Surplus fingerlings from the 500,000 eggs will be planted in Beaver, Elk and Indian creeks in the spring. This program shall be terminated upon completion of planting BY 1988 and an evaluation shall be submitted to the Chief of the Inland Fisheries Division no later than June 1, 1994. Evaluation shall be done by Region 1 personnel by carcass counts and juvenile surveys.

Excess Eggs

No eggs of any species excess to the above quotas will be taken without the advance, written authorization of the Chief, Inland Fisheries Division. Regardless, if excess eggs are taken in early phases of the runs, as insurance against potential shortages, later eggs will be taken in order to spread the egg take throughout the run. All excess early eggs will be destroyed unless needed for resident inland programs.

As further data are developed, this plan may be modified with approval by the Regional Manager of Region 1 and the Chief, Inland Fisheries Division.

TRINITY RIVER HATCHERY

Production Goals and Constraints

CHINOOK

Mitigation - (Bureau of Reclamation)

A. Spring Run - Take 3,000,000 eggs. Excess adults will be marked and returned to the river unspawned, except that those salmon bearing adipose (Ad) fin clips (indicating the presence of coded-wire tags) may be retained to permit recovery of the tags.

   1. Plant 1,000,000 smolts and 400,000 yearlings. All grade-outs shall be released at the hatchery site.

B. Fall run - Take 6,000,000 eggs. Excess adults will be marked and returned to the river unspawned, except that those salmon bearing Ad fin clips (indicating the presence of coded-wire tags) may be retained to permit recovery of the tags.

   1. Plant 2,000,000 smolts and 500,000 yearlings. All grade-outs shall be released at the hatchery site.

C. Because of IHN, all chinook produced/reared at Trinity River Hatchery will be planted above the mouth of the North Fork Trinity River. Any exceptions to this requirement must have advance written approval of the Chief, Inland Fisheries Division.

ENHANCEMENT - (Department of Fish and Game)

A. 400,000 fall run yearlings reared at Trinity River Hatchery and released at hatchery site.

COHO

Mitigation - (U.S. Bureau of Reclamation)

A. Take 1,200,000 eggs. Excess adults will be marked and returned to the river unspawned, except that those salmon bearing Ad fin clips (indicating the presence of coded-wire tags) may be retained to permit recovery of the tags. Rear 500,000 yearlings for release at Trinity River Hatchery. All grade-outs will be released at the hatchery site.

B. Excess eggs are quarantined due to the possibility of IHN.

ENHANCEMENT

A. No enhancement.

STEELHEAD

Mitigation - (U.S. Bureau of Reclamation)

A. Take 2,000,000 eggs. Excess adults will be marked and returned to the river unspawned. Rear 800,000 yearlings for planting at Trinity River Hatchery.

B. After hatchery modernization is completed, Sawmill Pond will be used to rear yearling steelhead grade-outs (= those fish < 6 inches at normal spring release time) for release as 2-year-olds the following spring as a means of increasing steelhead production at the hatchery. All 2-year-old steelhead will be released at TRH and/or Sawmill Pond.

C. No Iron Gate eggs will be received at Trinity River Hatchery.

D. After hatchery modernization, steelhead over 24 inches in length may be trapped at the Willow Creek Weir and spawned at Trinity River Hatchery. These fish will be reared separately from fish spawned at Trinity River Hatchery and will be marked and released at the hatchery site. This program will be evaluated in 1994.

Excess Eggs

No eggs of any species excess to the above quotas will be taken without the advance, written authorization of the Chief, Inland Fisheries Division. Regardless, if excess eggs are taken in early phases of the runs, as insurance against potential shortages, later eggs will be taken in order to spread the egg take throughout the run. All excess early eggs will be destroyed.

As further data are developed, this plan will be modified as needed.

REPORT TO THE KLAMATH RIVER FISHERIES TASK FORCE, MARCH 30-31, 1993.

TITLE: FISH AND ENVIRONMENTAL RESTORATION ACTIVITIES TO BE IMPLEMENTED IN FISCAL YEAR 1994 BY AGENCIES OF THE U.S. DEPARTMENT OF INTERIOR IN THE KLAMATH BASIN.

The U.S. Department of Interior is represented in the Klamath Basin by the Fish and Wildlife Service, Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, and Geological Survey. Primary landholdings of Interior are located in the upper basin above Iron Gate Dam. Timber production and grazing are the primary land uses on Interior land.

A survey of area offices within the basin revealed the following activities. Activities are lumped as they apply to specific objectives in the long range fishery restoration plan.

Objective 2.C Protect and improve the water quality of stream habitat from adverse agricultural practices.

Geological Survey -- Conducting a water quality study in Upper Klamath Lake. Focusing on external nutrient loading, causes and potential remedies. Trying to develop a model for determining impacts on lake water quality at varying levels of marsh restoration, riparian restoration, and nutrient supply reductions. GIS Technology is to be utilized. Study began in 1992, expected to be completed in 1997.

Proposed activities for 1994: USGS will continue field data collection and begin actual assessment of nutrient loading by surface flow. They will begin to focus work on groundwater nutrient supply.

Bureau of Reclamation (Denver office) -- Developing an "Agency Basin Management Plan" for Agency Lake (adjacent to Upper Klamath Lake). Will be a comprehensive management plan for controlling nutrient loading, restoring natural marsh areas to improve water quality and to establish rearing habitat for endangered suckers.

Proposed activities for 1994: Analysis of data collected in prior years; development of a report.

Bureau of Reclamation (Klamath Project) -- Funded HSU Professor Bob Gearheart to do a "paper study" of feasibility of marsh restoration. Objective of the study is to determine potential for increasing fish and waterfowl habitat and increasing water storage capacity in Upper Klamath Lake. Study to be completed in early FY1994.

Fish and Wildlife Service -- Toxicity studies being conducted to determine impacts of natural and man caused pollutants on endangered sucker species. Work being conducted in Upper Klamath, Tule, and Lower Klamath Lakes. Study to be completed in 1993. '92 work focused on juvenile stage, '93 work focusing on larval stage (30-day old) bioassays. Determining tolerance levels to pH, dissolved oxygen, ammonia concentration, and water temperature.

Proposed activities for 1994: Researchers hope to validate laboratory findings by sampling and observing fish in the lakes. Report on laboratory work will be finalized.

Bureau of Land Management -- Purchasing Wood River Ranch. Will restore marshes. Potential increase of waterfowl and fish habitat.

Proposed activities for FY1994: Evaluate effectiveness of marsh restoration in improving water quality and in providing fish and wildlife refugia.

Bureau of Land Management -- Member of a Coordinated Resource Management Plan (CRMP) group in the Spencer Creek watershed (a tributary of the Klamath River above Iron Gate Dam). The goal of the CRMP is to improve environmental conditions, including instream habitat conditions, by implementing better grazing and timber harvest techniques.

Proposed activities in FY1994: Continue participation.

Bureau of Land management -- Participating in a land exchange in Jenny Creek. Will acquire the 1,200 acre Box-O Ranch which contains about 2.5 miles of Jenny Creek, a tributary to the upper Klamath River. Completion of the restoration effort will take approximately 5 years.

Proposed activities in FY1994: Extensive riparian restoration work using volunteer work crews, in cooperation with local landowners and interest groups. Fencing, planting, and 16 instream restoration projects are scheduled.

Klamath Tribe -- Partially funded through BIA to monitor water quality of the Sprague and Williamson Rivers and Upper Klamath Lake, to develop a model which may determine potential impacts to the ecosystem through continued nutrient loading. Another objective is to assess potential impacts of marsh and riparian restoration. (Project similar to USGS study. Both agencies are trying to dovetail efforts.) 1991/92 sampling in low runoff year to be compared with 1992/93 high runoff year.

Proposed activities in 1994: Nutrient budget will be developed for upper Klamath Lake. Final report expected early in calendar 1994. Lake monitoring effort will be reduced in FY1994. Analysis and write up of previously collected data will be primary focus.

Objective 2.E Protect salmon and steelhead habitat from harmful effects of water and power projects in the Klamath Basin.

Fish and Wildlife Service -- The long term recovery plan is to be completed and distributed to the public by April, 1993. Development of this recovery plan is required by the Endangered Species Act. The recovery plan focuses on habitat restoration and, in some cases, habitat modification to restore endangered sucker populations.

Proposed activities in FY1994: Many habitat and population monitoring projects called for in the plan are already underway, and will be

continued. Habitat enhancement project (placement of spawning substrate) at Barkley Springs will occur.

Objective 3. Restore the habitat of anadromous fish of the Klamath River Basin by using appropriate methods that address the factors that limit the production of these species.

Bureau of Land Management -- The Land Management Plan for the Shasta Valley and upper Klamath River area should be finalized by June, 1993.

Proposed activities for FY1994: Some land acquisitions are proposed for '94 unless opposition arises from local government. Lands containing Shasta River and tributaries will be managed for fisheries values.

Objective 4: Strive to protect the genetic diversity of anadromous fishes in the Klamath River Basin.

Fish and Wildlife Service (Arcata Office) -- Following a phase-out of net harvest monitoring in '93, work in the Klamath Basin (excluding the Trinity River) will be dependent to a large degree on what proposals are funded. Proposals will cover work such as green sturgeon monitoring, outmigrant salmonid monitoring, and a possible continuation of Blue Creek studies.

Bureau of Indian Affairs -- The agency will assist in developing the Yurok Tribe's fisheries program; will phase out the USFWS contract work on the lower Klamath River; will develop a contract with Humboldt State University to assist in development of the Yurok Tribe's fisheries program.